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ABSTRACT

A project in major curriculum revision for a baccalaureate program in nursing accomplished: (1) extensive review of the present and future educational health and nursing care needs; (2) development of a philosophy of nursing education; (3) development of a set of terminal program objectives; (4) development of a statement about the graduate of the revised program; (5) development of a curriculum model; (6) development of courses for the revised curriculum; (7) approval of the revised curriculum; (8) development of an overall evaluation plan; (9) implementation of part of that evaluation plan by testing students and faculty; (10) reporting the results and literature review of student and faculty testing; (11) implementation of sophomore and junior year courses and planning for senior year courses; and (12) delineation of a curricular pattern for the registered nurse student. (Author/KE)

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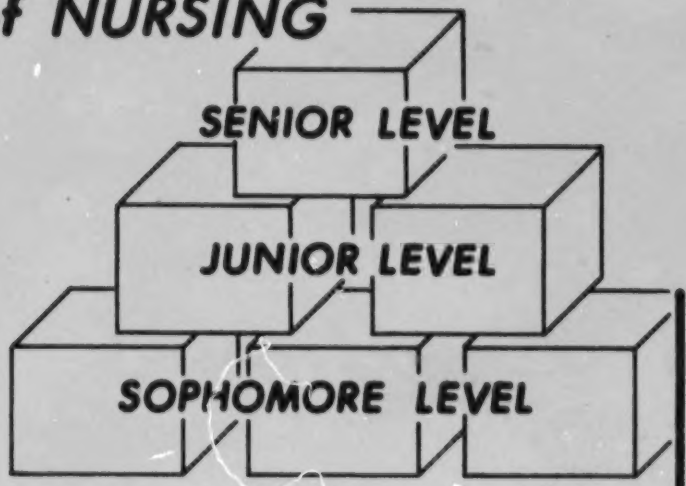

FINAL REPORT for GRANT 10 D 702004 05 0

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SCHOOL OF NURSING
UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON

FINAL PROJECT REPORT

ANALYSIS AND REVISION OF THE BACCALAUREATE PROGRAM IN NURSING AT THE UNIVERSITY OF WASHINGTON SCHOOL OF NURSING

JUNE 1, 1971 to JULY 31, 1976

DIVISION OF NURSING
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE
10 D 702004 05 0

SUBMITTED BY:

URSEL KRUMME
PROJECT DIRECTOR AND PRINCIPAL INVESTIGATOR
UNIVERSITY OF WASHINGTON SCHOOL OF NURSING

JULY 31, 1976

IDENTIFYING INFORMATION

1. Grant Number: 10 D 702004 05.

2. Title of the Project: ANALYSIS AND REVISION OF THE BACCALAUREATE PROGRAM IN NURSING AT THE UNIVERSITY OF WASHINGTON SCHOOL OF NURSING.

3. Name of Grantee Institution: University of Washington, School of Nursing
   Seattle, Washington

4. Name of the Project Directors and Principal Investigators:

   Dr. Vivian C. Wolf-Wilets, Associate Professor
   June, 1971 - June 30, 1975;

   Ursel S. Krumme, Research Associate
   July 1, 1975 - July 31, 1976.

5. Total Number of Years for Which the Project was Approved:

   Project approved for five years -- June 1, 1971 to July 31, 1976

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Students at the University School of Nursing for their involvement and evaluation.

Faculty at the University School of Nursing for their contribution of time and materials.

The Department Chairpersons for their administrative support: Jeanne Benoliel, Comparative Nursing Care Systems; Marguerite Cobb, Family & Community Nursing; Patricia Rose, Maternal & Child Nursing; Elizabeth Giblin (1971-72) and Maxine Patrick (1973-), Physiological Nursing; and Oliver Osborne (1971-73), Helen Nakagawa, Acting Chairwoman (1973-74), and Betty Mitsunaga (1975-), Psychosocial Nursing.

The Deans for the School of Nursing for their concern and interest in the successful outcomes of the project: Madeline Leininger (1971-74), Acting Dean Dorothy Crowley (1974-75) and Rheba de Tornyay (1975-).

Project Grant Director and Principal Investigator, Vivian Wolf-Wilets, 1971-75, for curriculum development, implementation, and evaluation efforts. She had responsibility for the student evaluation plan, designing the Faculty Perception of Curriculum Revision Questionnaire, and writing the literature review pertaining to the student evaluation program.

The Members of the Advisory Committee to the Project Grant for their guidance (1973-1976): Mary Anderson, Chief of Nursing Service, Veteran's Administration Hospital (1973-74); Doris Carnevali, Associate Professor in Comparative Nursing Care Systems; Mildred Disbrow, Professor in Maternal & Child Nursing (1973-75); Doris Geitgey, Associate Dean of Academic Affairs (1973-75); Elizabeth Giblin, Professor in Physiological Nursing (1975-76); Florence Gray, Assistant Dean and Director of the Undergraduate Program; Gerald Gillmore, Associate Director of the Educational Assessment Center; Robert Hoehn, Director of the Nursing Media Office (1975-76); Francis P. Hunkins, Professor in the College of Education; M. Linn Larson, Assistant Professor in Psychosocial Nursing; Joan Newman, Director of the Nursing Instructional Media Program (1973-74); Maureen Niland, Assistant Professor in Family & Community Nursing; and Anne Rohweder, Coordinator of Nursing at Olympic College.

The project grant staff who remained through the final year: Gaylene Altman for implementation work; Maxine Leckie for research skills in reporting evaluation findings; Carolyn Kellogg for program advisement of students; Mareth Fulton for student research assistance; Sue Askevold for secretarial work; and Carol McDonough for budget and administrative skills which sustained the project grant office until its closure.

ABSTRACT OF FINAL PROJECT REPORT

The School of Nursing faculty elected in 1969 to explore the baccalaureate curriculum of the future. Five task forces were organized to explore current issues in nursing service, education, and the School's curricular pattern. These initial groups focused on a rationale for curriculum change, discussed long range goals, proposed an inter-disciplinary approach to health sciences, identified major conceptual dimensions for curriculum emphasis and defined nursing process as the School's major focus. In 1970, a decision was made to submit a grant proposal for a total revision of the undergraduate curriculum. A five year grant, "Analysis and Revision of the Baccalaureate Program in Nursing at the University of Washington School of Nursing," was approved for funding June 1971. Expenditures for the project years 1971 to 1976 totaled $395,602.

The overall aim of the project was to propose revisions in the curriculum which would more adequately prepare the nursing student to meet the changing health service needs of society. The specific aims were:

1. State the need our curriculum should try to meet (satisfy).
2. Formulate a conceptual or theoretical framework for curricular modifications.
3. Propose a revised curricular plan for the baccalaureate program in nursing.
4. Implement the proposed curricular plan.
5. Evaluate the contribution of the new curriculum.

A second group of task forces, initiated in 1970, were Health Care Delivery in the Future, Consumer, Social Action, Philosophy, Objectives, and Curriculum Models. These task forces provided additional data regarding the latest developments in health care delivery with input from the consumers of such care. A philosophy of nursing, terminal objectives, and a description of the graduate of the revised program were delineated in light of these data. A curricular model was adopted. A third group of task forces was formed in 1972 to delineate

the essential content, concepts and behaviors for development of new courses which were accepted by the School of Nursing faculty September, 1972. Throughout the process of course development, the major functions of the project grant office were to facilitate curricular planning and to develop an evaluation program. In addition, a faculty member was appointed to assist with advisement of students and to code data from student records.

Implementation of the revised curriculum was initiated September, 1973 with students admitted to the pre-professional portion of the program. The new nursing courses were first offered Winter, 1975. A curricular pathway was delineated for the Registered Nurse who was a graduate of an Associate Degree or diploma program. A major emphasis during the implementation years was placed on developing faculty's knowledge of teaching strategies and learning resources. Workshops on innovations in instructional modes were conducted. An instructional system was delineated for the Sophomore and Junior years with planning underway for the Senior year course offerings. An Office of Audio-Visual Media was established in the School of Nursing directed by an educational media specialist. The project grant office provided media preview costs, services related to securing duplication permission, and funds for instructional materials. Throughout the years 1973-1976, the project grant services were seen as crucial to actual implementation due to the following special conditions: 1) the large faculty turnover; 2) the transitional period of an acting Dean for 1974-1975; 3) little or no release time for faculty; 4) School of Nursing budgetary restrictions within University-wide cutbacks; and 5) the practical necessity of assisting in the review and dissemination of instructional materials.

A major evaluation system was developed and initiated by grant personnel. Seven evaluation goals guided staff efforts to evaluate the curricular plan. Methods and data sources were selected that would best attain the objectives of the proposed evaluation plan. A clinical Evaluator and a Research Analyst were appointed. The curricular materials of the revised undergraduate program

were reviewed and approved by the Board of Review for Baccalaureate and Higher Degree Programs of the National League for Nursing. The broad curriculum evaluation plan that would look at the interaction of student characteristics and a battery of psychological and achievement tests was initiated. The summary results of the psychological testing and student record evaluations are included; however, accomplishing the purposes described for this evaluation system remains the task for future researchers. Summaries of the Faculty Characteristics and Faculty Perceptions of Curriculum Revision Questionnaires are reported. Students' evaluation of learning activities are described. Plans were made for the continuation of the project.

TABLE OF CONTENTS

Page

IDENTIFYING INFORMATION ii

ACKNOWLEDGEMENTS iii

ABSTRACT OF FINAL PROJECT REPORT iv

PROBLEM OR SITUATION WITH WHICH THE PROJECT DEALT

- Title of the Project 1
- Descriptive Purpose of the Project Grant 1
- Questions Posed 1
- Background Information Relevant to the Questions and Project Grant Proposal 2
- Proposed Specific Aims of the Project 3
- Proposed Plan of Action to Achieve the Specific Aims 5
- Facilities and Supporting Services 6
- Personnel Changes in the Initially Approved Plan 7

ACCOMPLISHMENTS RELATED TO AIM ONE THROUGH FIRST PROJECT YEAR, 1972: STATE THE NEED OUR CURRICULUM SHOULD TRY TO MEET (SATISFY)

- Task Forces and Workshops 10
- Summary of Actions Taken and Results Produced 12
- Contributions of Project Grant 14

ACCOMPLISHMENTS RELATED TO AIM TWO THROUGH FIRST PROJECT YEAR, 1972: FORMULATE A CONCEPTUAL OR THEORETICAL FRAMEWORK FOR CURRICULAR CHANGES

- Description of the Students 16
- Goals of the Revised Undergraduate Program 17
  - Working Philosophy of Nursing 18
  - Terminal Program Objectives for the Revised Curriculum 18
  - Description of the Graduate of the Revised Program 20
  - Curricular Model Adopted 20
- Summary of Actions Taken and Results Produced 21
- Contributions of Project Grant 24

ACCOMPLISHMENTS RELATED TO AIM THREE THROUGH SECOND PROJECT YEAR, 1973: PROPOSE A REVISED CURRICULAR PLAN FOR THE BACCALAUREATE PROGRAM IN NURSING

- Definition of the Curriculum System 25
  - Three Major Organizing Principles of the Revised Curriculum . . 26
  - Core Content Areas and How They Were Operationalized 28
- Description of the Instructional System 29
- Delineation of the Evaluation System 29
  - Plan for Student Evaluation 34
  - Student Testing Initiated 36
  - Plan for Faculty Evaluation 37
  - Tests Reviewed and/or Tried 38
- Summary of Contributions of Project Grant 38

ACCOMPLISHMENTS RELATED TO AIM FOUR FROM THIRD THROUGH FIFTH PROJECT YEAR, 1976: IMPLEMENT THE PROPOSED CURRICULAR REVISION

Modifications of the Revised Curriculum 40
Committee Structure 41
Curricular Revisions from the Original Pattern 41
Curricular Pattern Evolved for the Registered Nurse Student 42
Selection of Teaching and Evaluation Strategies 45
Selection of Learning Resources 50
Faculty In-service for Teaching Physical Assessment 52
Curriculum Coordination and Evaluation Efforts 53
Summary of Contributions of Project Grant 56

ACCOMPLISHMENTS RELATED TO AIM FIVE FROM THIRD THROUGH FIFTH PROJECT YEAR, 1976: EVALUATE THE CURRICULAR PLAN

Evaluation of the Curricular Materials 58
Evaluation of Achievement 59
Tests Reviewed and/or Administered 59
Clinical Performance Evaluation 59
Evaluation of Time and Cost Effectiveness 61
Results of Student Evaluation 63
Student Records 64
Psychological and Student Characteristics Test Data 66
Results of Faculty Evaluation 69
Summary of Faculty Characteristics Questionnaire and Psychological Tests 69
Summary of Faculty Perception of Curriculum Revision Questionnaire 70
Course Evaluation 70
Students' Evaluation of the Nursing Process Modular Approach 70
Students' Evaluation of Learning Activities 73
Summary of Contributions of Project Grant 74

PLANS FOR THE CONTINUATION OF THE PROJECT 76

SUMMARY OF FIVE-YEAR PROJECT 78

LIST OF APPENDICES 80

LIST OF TABLES

Table		Page
1	Funds Allocated and Actual Expenditures for 1971-1976	3
2	Actions Taken and Resulting Activities Related to Questions and Objectives of Aim One Posed in Project Grant Proposal for Future Curriculum Implications, 1970-1972	13
3	Terminal Program Objectives for the Revised Curriculum	19
4	Curricular Model Adopted for the Revised Undergraduate Program. . .	22
5	Actions Taken and Resulting Activities Related to Questions and Objectives of Aim Two Posed in Project Grant Proposal for Future Curriculum Implications, 1970-1972	23
6	Bachelor of Science in Nursing Degree Program Pattern	27
7	Overall Evaluation Design and Data Collection Procedures	34
8	Faculty Participation in Testing	37
9	Learning Grid for Module on Physical Assessment Skills	47
10	Physical Assessment Module - Behavior Checklist	48
11	State Board Examination Mean Raw Scores for Students Graduating from University of Washington School of Nursing, 1972-1974	60
12	NLN Achievement Test Mean Raw Scores for Generic Students Enrolled in University of Washington School of Nursing, Classes of 1972-1975	60
13	The Methodology Adopted in the Development of a Research Instrument for Evaluating Senior Clinical Nursing Performance . . .	62
14	Student Participation in Testing 1972-1975	66
15	Results of Faculty Characteristics Questionnaire, 1973	69

PROBLEM OR SITUATION WITH WHICH THE PROJECT DEALT

Title of the Project

Analysis and Revision of the Baccalaureate Program in Nursing at the University of Washington School of Nursing.

Descriptive Purpose of the Project Grant

To facilitate the revision, implementation, and evaluation of the baccalaureate curriculum.

Questions Posed

After considering curricular problems arising since the last major revision of the curriculum for the University of Washington School of Nursing, (planned, 1952 and implemented, 1957) faculty and students decided that essential revisions were needed in the undergraduate program. The following questions were raised for future curriculum implications:

1. What are present and future societal needs relative to health services, and more specifically for nursing?
2. What will be the future role of the baccalaureate graduate of nursing?
3. What will be the learner's needs relative to becoming a member of the nursing profession?
4. What do subject matter specialists say currently about the present and future needs relative to nursing curriculum?
5. What does the faculty believe and wish for in terms of the long-range goals of undergraduate nursing education for this School of Nursing?
6. What are the specific areas of repetition of content and specific omissions (gaps) in the current undergraduate nursing curriculum?
7. In light of future changes within the University, how will these changes affect the offerings in the School of Nursing? For example, what will happen if the University limits enrollment to upper division graduate students?
8. What will be the most effective means to prepare baccalaureate graduates in nursing in the future?

Background Information Relevant to the Questions and Project Grant Proposal

Beginning October, 1969, 50-60 faculty members became actively involved in discussing curricular changes. Task Forces were formed around the following areas: 1) Long Range Goals, 2) Rationale for Curriculum Change, 3) Concepts, 4) Repetition and Gaps, and 5) Inter-Disciplinary.[1] The Long Range Goals Task Force focussed on projecting the overall aims for the baccalaureate degree in nursing. The Rationale for Curriculum Change Task Force directed its attention to finding information for the questions relative to the needs of society and the learner and to reviewing opinions from experts (see questions 1, 2 and 3 above). The Concepts Task Force focussed on delineating and defining levels within selected concepts, i.e., stress-crisis, health-illness, and immobility. The Repetition and Gaps Task Force studied nursing care plans used at various levels in the existing program to identify repetition and gaps. The goal of the Interdisciplinary Task Force was to investigate the possibilities for content that would be amenable to an interdisciplinary approach in a new curriculum.

The chairman of each task force and representatives from each department of the School of Nursing comprised an Ad Hoc Committee to Coordinate Curriculum Study. This committee served as liaison between the Task Forces and the Faculty Steering Committee. One of the charges of the Faculty Steering Committee in collaboration with the Ad Hoc Committee to Coordinate Curriculum Study was to plan workshop activities which would assist faculty in moving towards major curriculum changes.

Following numerous faculty sessions on issues influencing nursing practice, it became evident that the structure which had provided the framework for the baccalaureate curriculum for over ten years no longer corresponded with the needs of society or with the needs of students. Although several changes had been

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[1]For a further description of some of the actions taken and results produced by the Task Forces see V. C. Wolf and C. M. Smith, "Curriculum Change: Evolution of a Dynamic Structure," Nursing Outlook, 22: 315-320, May, 1974.

considered and minor adjustments were subsequently made, major innovations had not been activated. The University of Washington School of Nursing felt it had an obligation to maintain a program which was commensurate with the expectations of the community it served. Unfortunately, as with most state universities, the budget appropriations were on a maintenance level which did not provide for the cost of extensive innovations.

It was anticipated that a project grant could provide personnel, staff, and other resources to systematically engage in a major curriculum revision. The School of Nursing's grant, "Analysis and Revision of the Baccalaureate Program in Nursing at the University of Washington School of Nursing," submitted September, 1970, was funded June, 1971 for a five-year period in the amount of $420,509. Actual expenditures for the total five-year project were $395,602. Table 1 presents the funds allocated and actual expenditures for each project year:

TABLE 1

FUNDS ALLOCATED AND ACTUAL EXPENDITURES FOR 1971-1976

Project Year	Funds Allocated	Actual Expenditures
1971-1972	63,160	46,640
1972-1973	76,558	69,893
1973-1974	84,454	83,606
1974-1975	93,299	91,244
1975-1976	103,038	104,219*

*1,171 carried forward from year 1974-1975

Proposed Specific Aims of the Project

Aims were formulated that relate to the questions posed for the project. On the basis of an evaluative analysis of the existing program, the overall aim was to propose a major revision in the curriculum. The specific aims of the project, as given in the original proposal, were:

1.0 State the need our curriculum should try to meet (satisfy).

- 1.1 Interpret the health service needs of society.
- 1.2 Identify the role of the nurse in meeting the health service needs of society.
- 1.3 Evaluate the current curriculum plan to determine how effective it has been.
- 1.4 By analytic analysis determine if the nursing student can meet the prescribed needs.
- 1.5 Support essential changes or innovations which these needs suggest.

2.0 Formulate a conceptual or theoretical framework for curricular changes.

- 2.1 Describe the student who will be enrolled in the program.
- 2.2 Interpret the functions of the graduate from the program.
- 2.3 Explicitly state the values which are the basis for the proposed plan.
- 2.4 State objectives for the proposed plan.
- 2.5 Generate different alternative modifications.
- 2.6 Select the best alternatives by careful analysis.
- 2.7 Implement the selected alternatives for testing.
- 2.8 Provide feed-back from the selected experimentation.

3.0 Propose a revised curricular plan for the baccalaureate program in nursing.

- 3.1 Define the curriculum system.
- 3.2 Describe the instructional system.
- 3.3 Delineate an evaluation system.

4.0 Implement the proposed curricular plan.

- 4.1 Describe the input for the curricular plan.
- 4.2 Delineate the content for the curriculum.
- 4.3 Propose alternative processes for presentation of content.
- 4.4 Evaluate the output for the implementation of the plan.

5.0 Evaluate the contribution of the new curriculum.

- 5.1 Delineate the contribution to meeting health service needs.
- 5.2 Identify the impact of this approach on nursing in meeting health needs.
- 5.3 Analyze the predictive value of this curricular approach.
- 5.4 Determine if the new curriculum has generated curricular innovations.
- 5.5 Evaluate this curricular approach.

Proposed Plan of Action to Achieve the Specific Aims

For this systematic curricular study, the stated questions gave direction to the analysis which was essential before any revision could be proposed. To further answer the posed questions, a second group of Task Forces was formed in 1970 in the following areas: 1) Health Care Delivery in the Future, 2) Consumer, 3) Social Action, 4) Philosophy, 5) Objectives, and 6) Curriculum Models. The Ad Hoc Committee to Coordinate Curriculum Study continued to serve as liaison between the Task Forces and the Faculty Steering Committee. The entire faculty acted upon all issues and recommendations made by these groups. It was anticipated that this organizational structure would continue to be followed during the project years. The following five phases were identified, corresponding approximately to each year in the project period:

Phase I. Study of sciences basic to nursing.

Phase II. Delineation of concepts, theories, and postulates relevant to nursing.

Phase III. Proposals to develop competencies relevant to goals.

Phase IV. Organization and design of undergraduate curriculum.

Phase V. Evaluation of curriculum plan.

Mechanisms for approval of curricular revisions within the University would be followed. The project grant would provide personnel, staff services, and resources to facilitate the revision, implementation, and evaluation of the baccalaureate curriculum. Since evaluation was a primary factor in the proposed project, specialists in evaluation and measurement would serve as consultants. Members from the University's Bureau of Testing who served in this capacity for other projects would be contacted. Nursing educators and subject specialists would be requested to assess the curricular plan and make critical analyses of alternative modifications.

Facilities and Supporting Services

The same campus facilities which were used for the existing baccalaureate program would be used for the revised curriculum. Likewise, the use of clinical facilities in the community would be continued. The organizational structure of the School of Nursing within the Health Sciences and within the overall University fostered cooperative effort. This relationship would be an asset whenever an interdisciplinary approach was desired for selected content areas.

By the Fall of 1971, the School of Nursing was reorganized into five new departments: Psychosocial Nursing; Family and Community Nursing; Physiological Nursing; Maternal and Child Nursing; and, Comparative Nursing Care Systems (see Organizational Structure of the School of Nursing, Appendix A). These new departments were identifying the discipline basis for their departmental inquiry, research, and teaching thrusts. This type of work would interdigitate with work on content changes for the undergraduate program.

Also, by the Fall of 1971, a new organizational unit, the Program Council, was functioning within the School. It consisted of elected faculty and student representatives from the departments and some appointed administrative personnel. The central purpose of the Program Council was to review, discuss, and coordinate undergraduate and graduate curricular matters, problems, and issues that had major relevance to all the five departments in the School of Nursing. Although its focus initially was on the existing undergraduate program, it shifted to work on the revised curriculum after it was developed.

The personnel and equipment used in the project "Demonstration Project to Explore Ways of Using Videotapes in Teaching Fundamentals of Nursing" (Grant No. NPG-160-04), as well as the 18 tapes produced, were available for instruction and research in the revised curriculum.[1] By Fall, 1972, a $31,000,000 School of Nursing building was completed and occupied. The physical facilities of the new building could encourage experimentation with innovative education techniques and

[1]Funded July 1, 1966 to December, 1970.

permit the use of diverse teaching strategies. There was one large television studio and two smaller studios. Classrooms, study areas, and student carrels were available for conferences, experimental laboratory work, and for individual study. The structure was a modern facility to accommodate many new ideas discussed for the revised basic curriculum.

Personnel Changes in the Initially Approved Plan

Two full-time directors and two secretaries were initially approved for the project grant staff. The project grant Director, a nurse with a Ph.D. in Curriculum and Instruction who was a member of the faculty, was appointed June, 1971 (see Appendix B). Six months' working time was lost, however, in the Assistant Director position before a nurse with post-masters preparation in Educational Anthropology joined the staff January, 1972. A master's student assisted with literature searches in the interim period.

The Institute for Educational Research, a division of the University Bureau of Testing, was hired to design a form and gather some descriptive data on students from Spring through Summer, 1972. Although this was seen to be a means for assistance when grant staff time was heavily used in working with faculty in the development of curricular materials, there were some unanticipated problems, including delays and errors in data obtained. It was, therefore, decided that an individual should be hired as part of the grant personnel to gather student record data. A nurse with a B.A. joined the staff September, 1972 as a Research Assistant/Advisor. She divided her half-time position equally between gathering data from student records and advising students in the Undergraduate Office, due to an increase in enrollment in the existing curriculum. In September, 1975, this half-time position was fully allocated to advising students (see Appendix B). A half-time student research assistant was also added September, 1972 to work on data analysis.

As it became clear that none of the existing clinical evaluation tools reviewed were adequate for measuring graduating senior students' performance, a part-time position of Evaluator was created. This position was filled from October, 1973 until November, 1974 by a nurse who had completed all course work toward a doctorate. From February through May, 1975 it was held by a nurse with a Doctorate in Public Health. The Evaluator position was not occupied thereafter since the first priority identified for the grant year 1975-1976 was implementation of the revised curriculum (see Appendix C). Some pre-masters' student research assistant's time was provided with abstracting the performance evaluation literature when the Evaluator position was filled.

Grant funds supported a Director's position, part-time at her request, during the year 1974-75. This was to enable the Director, who was then tenured, to be moved gradually onto State funds. The Assistant Director position was reduced to half-time in November, 1974 in order to create a part-time Research Analyst position (see Appendix B). This position was filled by a person with an M.S. in psychology whose duties were to assist with the psychological test and student data analyses and write-ups. Two pre-doctoral research associates joined the project staff January through May, 1975 to provide additional expertise in statistics, research design, and computer analysis of test results.

There was great concern when the grant Director resigned her position for the remaining nine months of the project. The Acting Dean asked that the Assistant Director assume the responsibilities for administering the project grant for the fifth year and placed the Director on special assignment for Summer, 1975 to complete the write-ups and analyses of data relating to psychological testing and student record evaluation. Grant resources were reallocated for accomplishing this task (see Appendix C). When this task was not completed by September, 1975, a recommendation was forwarded to the former Director by the Grant Advisory Committee to have this written report available by the end of the calendar year. When the

report of the findings did not become available in January, 1976, the Advisory Committee asked the present personnel to accomplish the portions of this task which were feasible to complete given their other responsibilities. The summary results of the psychological testing and student record evaluations are included in this report; however, accomplishing the purposes described for the evaluation system adopted remains the task for future researchers.

ACCOMPLISHMENTS RELATED TO AIM ONE THROUGH FIRST PROJECT YEAR, 1972:
STATE THE NEED OUR CURRICULUM SHOULD TRY TO MEET (SATISFY)

The specific objectives for this aim were:

1.1 Interpret the health service needs of society.
1.2 Identify the role of the nurse in meeting the health services needs of society.
1.3 Evaluate the current curricular plan to determine how effective it has been.
1.4 By analytic analysis determine if the nursing student can meet the prescribed needs.
1.5 Support essential changes or innovations which these needs suggest.

Some of the accomplishments related to these specific objectives were effected before the project grant was submitted September, 1970 and during the interim period prior to project grant funding June, 1971. The major work related to objectives 1.1, 1.2, and 1.5 was conducted by the Task Force on Health Care Delivery in the Future, the Task Force on the Consumer, and the Task Force on Social Action. Work related to objectives 1.3 and 1.4 was performed by the Task Force on Repetition and Gaps. Workshops provided additional input related to the specific objectives for this aim.

Task Forces and Workshops

A major portion of work related to the objectives "Interpret the health service needs of society" and "Identify the role of the nurse in meeting the health services needs of society" was done by the Task Force on Health Care Delivery in the Future formed in 1970. After a year of work, this task force presented its report and recommendations. Included were position papers written by a physician, a nursing service director, a pharmacist, nursing educators, and students on the following topics:

The Changing Health Needs of Society; Forecasting Health Care Delivery Systems; Hospital Systems of the U.S.: Implications for Nursing; Trends toward Health Care Settings Outside Hospitals; Projected Health Manpower Needs; Health Care Planning in Washington State; Changing Role of Health Workers; Role of the Professional Nurse in the Future; New Nursing Roles;

Position on the Role of the Professional Nurse in our Society; Clinical Image of Nursing: Practice and Education; The Health Care Disciplines; The Physician's Assistant; Nursing Education and Changing Patterns for Health Manpower; One Concept of the Nurse as Primary Source of Care for Ambulatory Adult Patients; New Policy on Licensure of Health Care Personnel and Statement of Licensure of Health Occupations.

The report was distributed to all faculty and discussed at a workshop in May, 1971. This material greatly influenced the delineation of core content areas which subsequently were accepted by faculty and developed into course outlines, especially the area, "Social, Cultural, and Health Care Systems" (described under accomplishments for Aim Three: "Core Content Areas and How They were Operationalized.")

The Task Force on the Consumer, formed in 1970, studied consumers' opinions of nurses and their contribution to health care delivery. This task force interviewed eight groups of consumers from different socio-economic levels and placed a questionnaire in a local newspaper. Consumers' responses were analyzed and an audio-tape developed which contrasted some of the ideals of nursing with actual positive and negative statements by consumers. The tape stimulated lively discussion when presented at a May, 1971 workshop.

The Task Force on Social Action, also formed in 1970, provided innovative curricular input regarding social issues and the nurse's role in social action. A definition of social action with curricular implications was formulated and subsequently incorporated in the terminal program objectives and areas of core content. These are described under accomplishments related to Aim Two: "Goals of the Revised Undergraduate Program."

Because the extended role of the nurse was changing rapidly, faculty examined the area of clinical specialization and its placement in the revised curriculum. Three workshops were held. At the first, several faculty members presented position papers on clinical specialization. During the second workshop a nursing services director and two clinical specialists from the University of Utah presented their experience with the development of the role of the clinical specialist and steps in gaining its acceptance. During the third workshop, a physician from the

University of Rochester presented an analysis of a program developed for the nurse practitioner. This type of input assisted faculty in formulating and clarifying the clinical component of the revised curriculum.

The Task Force on Repetition and Gaps, formed in 1969 to study problems in the existing curricular offerings, investigated methods used in teaching nursing process by analyzing a variety of nursing care plan forms. This study stimulated faculty groups to develop coordinated care plans with a heavy emphasis on evaluation. The task force results can be seen in the strong emphasis on nursing process found in the revised terminal program objectives discussed under accomplishments of Aim Two: "Goals of the Revised Undergraduate Program." Existing course objectives were also analyzed as to the level of behaviors and content to determine if content was repeated at the same behavioral level and whether areas of essential content were omitted. The objectives and content were compared with statements found in the literature about the needs in health care. A student panel, asked to present their views of desired changes for the revised curriculum, identified the following areas: more on emergency care, alcoholism and drug abuse; more electives in nursing; more research; more concentrated work time in a clinical area; more immediate patient contact; and patient teaching and psychiatric nursing taught earlier. The students also expressed concern about the sequencing of several areas of content in the present curriculum.

Summary of Actions Taken and Results Produced

The accomplishments for the aim "State the Need our Curriculum Should Try to Meet," are summarized in Table 2 as "Actions Taken and Resulting Activities Related to Questions and Objectives of Aim One Posed in Project Grant Proposal for Future Curriculum Implications, 1970-72." The task force findings and data on the existing program supported the planned changes.

TABLE 2

ACTIONS TAKEN AND RESULTING ACTIVITIES RELATED TO QUESTIONS AND OBJECTIVES OF AIM ONE POSED IN PROJECT GRANT PROPOSAL FOR FUTURE CURRICULUM IMPLICATIONS, 1970-1972

QUESTIONS/OBJECTIVES	ACTION TAKEN	RESULTING ACTIVITIES
1. What are the present and future societal needs relative to health services and, more specifically, nursing? (Question 1/Sub-aims 1.1, 1.2, 1.5)	Task Force on Health Care Delivery Systems formed.	Task force written report produced and discussed in workshops.
a. What does the consumer want from health care and nursing care? (Sub-aims 1.1 and 1.2)	Consumer Task Force formed.	Interviews of consumers in different social strata conducted. Survey of some consumers by questionnaire. Data collated and analyzed. Findings and an audiotape of consumers' views presented at workshop.
b. What is the nurse's role in relation to social action? (Sub-aim 1.2)	Social Action Task Force formed.	One panel discussion presented. A definition of social action and series of statements of curricular implications formed.
2. What will be the future role of the baccalaureate graduate of nursing? (Question 2/Sub-aim 1.2)	Workshops on clinical specialization held.	Three faculty presented position papers on clinical specialization. A nursing services director and two clinical specialists gave presentations. A physician presented views on the nurse practitioner. Materials from the Task Force on Health Care Delivery were also used.
3. What are the specific areas of repetition of content and gaps in the present curriculum? (Question 6/Sub-aims 1.3, 1.4)	Task Force on Repetition and Gaps formed.	Nursing care plans from different levels of the curriculum were analyzed to look at the sequencing of the nursing process. Objectives analyzed as to level of behaviors and content to determine if content was repeated at the same behavioral level; whether areas of content were ignored. Present objectives and content compared with statements found in the literature about the needs in health care. Students presented their views on what they felt should be changed about the curriculum.

Contributions of Project Grant

The project grant Director chaired the Undergraduate Curriculum Study Committee which replaced the Faculty Steering Committee, December, 1970, to serve as the planning, coordinating, and advising group. This study group, comprised of representatives from the five departments of the School of Nursing, met at least every two weeks to discuss the problems and deliberations of faculty. The project grant provided support services in the development of strategies to facilitate curriculum planning by processing the many documents produced by the task forces and by planning faculty workshops.

Initial work was also undertaken by the project grant personnel to develop plans for gathering baseline data on the existing program. Through MEDLARS and ERIC searches, the following areas of literature were reviewed: faculty and student characteristics, attitudes, values, abilities, and background; students' reactions to programs, curriculum, research, specialization; sequence; creativity; problem solving; curricular process; learning; instruction; nursing care and collaboration. Seventeen schools of nursing that had recently been or were presently engaged in curriculum revision, and six organizations that had tests available were surveyed. A dissertation reporting the relationship between selected personality factors and biographical characteristics with criterion measures of success in senior nursing students and recent graduates of six schools of nursing, including the University of Washington, was reviewed.[1] Three instruments used with the present students were identified as promising ones to study the curriculum revision and, if administered, would provide comparative data dating back to 1968: the Myers-Briggs Type Indicator, the Personal Orientation Inventory by Shostrom, and a new Clinical Nursing Rating Scale.[2]

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[1] E. Reekie, "Personality Factors and Biographical Characteristics Associated with Criterion Behaviors of Success in Professional Nursing," (unpublished Ph.D. dissertation, Department of Education, University of Washington, 1970).

[2] Ibid.

Other sources of information that were analyzed for delineating a comprehensive plan of evaluation for curricular comparison across changes were: 1) the Washington Pre-College Entrance Examination, which tests general education skills, taken by all students who attend the University; 2) the NLN Medical-Surgical and Maternal and Child Health Nursing Achievement Tests taken by all junior students in the program; 3) the State Board Examinations taken for licensure by the generic students; and 4) a series of comprehensive Nursing Examinations administered to entering registered nurse students who wish to gain credit for their work. The extensive literature and test review guided the project grant personnel in their identification of a model of curricular evaluation described under accomplishments for Aim Three: "Delineation of an Evaluation System."

ACCOMPLISHMENTS RELATED TO AIM TWO THROUGH FIRST PROJECT YEAR, 1972: FORMULATE A CONCEPTUAL OR THEORETICAL FRAMEWORK FOR CURRICULAR CHANGE

The specific objectives for this aim were:

2.1 Describe the student who will be enrolled in the program.
2.2 Interpret the functions of the graduate from the program.
2.3 Explicitly state the values which are the basis for the proposed plan.
2.4 State objectives for the proposed plan.
2.5 Generate different alternative modifications.
2.6 Select the best alternatives by careful analysis.
2.7 Implement the selected alternatives.
2.8 Provide feed-back from the selected experimentation.

Some of the accomplishments related to these specific objectives were also completed prior to funding approval June, 1971. The work undertaken for this aim is explained under the headings of Description of the Students (2.1), Goals of the Revised Undergraduate Program: Working Philosophy of Nursing (2.3), Terminal Program Objectives for the Revised Curriculum (2.4), Description of the Graduate of the Revised Program (2.2), and Curricular Model Adopted (2.5 - 2.8).

Description of the Students

In order to describe the students who would be enrolled in the revised program, three summaries were prepared to describe the social characteristics of students enrolled in the existing curriculum. For the first summary, data on some of the generic students (N=120) were gathered and discussed at an April, 1971 meeting of the Undergraduate Curriculum Study Committee in terms of implications for curriculum revision.[1] This study indicated the present students who began nursing at the University of Washington tended to be single, under 19 years of age, Caucasian (90 percent), Washington residents (90 percent), and the oldest or mid-placed in the family. Their fathers tended to have professional or clerical/sales type occupations. Half the fathers and a third of the mothers were college graduates.

[1] Student characteristics examined by Professor Roma Blaschke were: 1) family background, 2) cultural/social background, 3) geographic background, for example, the size of the community, and 4) the stated reason for entering nursing, career goals, and the reasons this school was selected.

Two-thirds of the students came from families with an income of $11,000 or more and from communities over 20,000. About half came from the top quarter of their class. The students' goals were very general, and their view of nursing could be exemplified by the statement, "I'd like to help people."

The second summary described the characteristics of the registered nurse student who was a graduate from a diploma or associate degree program. These students were older and highly motivated, had some experience in nursing, had varied levels of discriminative judgment and knowledge of preventive measures, had limited understanding and skills in problem solving and critical analysis, and had skills in meeting individual health needs but were frequently limited in the area of community health needs.[1] For the third summary, a panel from local community colleges described the students enrolled in their program.

Faculty concluded that students would continue to come to the school with varying backgrounds and abilities. Based on this conclusion, a statement was placed in the philosophy that the revised curriculum should have multiple entry points so that students would be able to move as rapidly as possible through the program. All nursing courses were to be offered more frequently. Instead of one entry point, students would be admitted Winter and Summer quarters. Faculty also decided that challenge exams for every course would be developed.

Goals of the Revised Undergraduate Program

The Task Force on Long Range Goals, formed in 1969, reviewed literature under the headings: Social Change and Health Services, Trends in Nursing Education, Functions of the University, the Center for the Health Sciences and the School of Nursing, Long Range Goals for the School of Nursing and Goals for the Undergraduate Program. They made specific recommendations that influenced the content of the terminal program objectives and curricular model accepted. The Long Range Goals Report was distributed and discussed at a workshop May, 1970.

[1]Presented by Professor Doris Carnevali, Faculty Workshop, 1969.

Working philosophy of nursing. The Philosophy Task Force, formed in 1970, analyzed the statements from the Task Force on Rationale for Curriculum Changes on health care, nursing, education, learning, and students. With input from faculty and students, they evolved philosophy statements which were discussed by faculty. These statements were accepted November, 1970 as the working philosophy of nursing (see Appendix D).

Terminal program objectives for the revised curriculum. The Objectives Task Force proposed terminal program objectives to faculty in 1970. Suggestions were sought from students, physicians, consumers, and nursing service personnel. Several faculty discussions were subsequently held Spring and Summer, 1971. The faculty voted to use the taxonomies of the cognitive, affective, and psychomotor domains as a basis for writing the behavioral components of all the objectives developed.[1] The terminal program objectives shown in Table 3 were accepted by faculty as working statements in August, 1971. A definition of the terms as used in the terminal objectives is found in Appendix E.

The objectives may be viewed in the following way:

Objectives I through VII relate to the nursing process. Teaching has been considered as a part of the nursing process.

Objectives VIII and IX relate to the ability to use research.

Objective X concerns the ability to appreciate nursing history.

Objective XI centers on the ability to use role relationships.

Objectives XII through XIV focus on the development of the nurse as an individual.

Objective XV centers on the nurse's role in relation to social action.

Objective XVI pertains to the ability to apply new developments in technology.

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[1] B. S. Bloom and others, Taxonomy of Educational Objectives - The Classification of Educational Goals, Handbook I: Cognitive Domain (New York: David McKay Co., 1956), Taxonomy of Educational Objectives - The Classification of Educational Goals, Handbook II: Affective Domain (New York: David McKay Co., 1964), and E. J. Simpson, "The Classification of Educational Objectives, Psychomotor Domain," Journal of Illinois Teacher of Home Economics, 9-10; 110-144, Winter, 1966-67.

TABLE 3

TERMINAL PROGRAM OBJECTIVES FOR THE REVISED CURRICULUM

Upon completion of the undergraduate program, the School of Nursing faculty believes the student will meet the following objectives.

The Student:

I. Assesses with individuals and groups, their health-illness status and context in order to determine nursing care implications.

II. Collaborates with others to synthesize plans to improve health care.

III. Formulates a plan of nursing care which contributes to the total plan of health care.

IV. Implements plans for health and nursing care within broad health care plans or systems.

V. Implements teaching to improve nursing and health care.

VI. Evaluates the effectiveness of nursing care and health plans and systems.

VII. Develops and maintains helpful relationships with individuals that would facilitate health care.

VIII. Is committed to using research knowledge applicable to nursing and health care.

IX. Applies research skills to solve and/or study nursing and health problems.

X. Appreciates the historical aspects of the profession of nursing and health care and their relationship to current and futuristic goals in the delivery of health care service.

XI. Is characterized by the appropriate use of independent, leadership, and collaborative role relationships as indicated by the goals to be accomplished.

XII. Is characterized by a concern for the uniqueness and rights of individuals and groups in relation to health care.

XIII. Is characterized by continually developing self-awareness.

XIV. Continues developing the ability to learn and being responsible for own learning.

XV. Is characterized by using social actions with responsibility to bring about changes in the interest of promoting health.

XVI. Is characterized by the ability to use dynamic technological advances to improve nursing and health care.

Description of the graduate of the revised program. In order to describe how the graduate of the revised program would function, the faculty developed the following statement which was accepted June, 1972:

Central Goal:

The graduate of the new baccalaureate nursing program of the University of Washington School of Nursing will be a nurse practitioner with generalized professional preparation in nursing and beginning competencies in a nursing specialty.

The practitioner will implement skilled nursing care in a variety of settings by:

1. Obtaining health histories and making general health assessments.
2. Providing safe and competent care in emergency situations and acute illnesses.
3. Providing supportive care to persons with chronic or terminal health problems.
4. Providing health teaching, guidance, and counseling.
5. Assisting persons to maintain optimal health status.
6. Providing for continuity of health services.
7. Assuming leadership responsibility for planning and evaluating nursing care.
8. Working effectively with all persons concerned with health care problems.

The nurse practitioner is accountable and responsible to the recipient for the quality of nursing care which is given directly or accomplished by leading or coordinating the work of others.

Curricular model adopted. A Models Task Force and the Undergraduate Curriculum Study Committee conducted several workshops on curriculum models. In November, 1970, there was a general presentation on curricular models and organizations. In March, 1971, the conceptual frameworks of the University of Colorado, University

of California at San Francisco, and Arizona State University were presented. Materials on conceptual frameworks shared by seventeen schools were made available to faculty. As a result of the workshops and circulated materials, the faculty generated ten different models of nursing curricula. The Undergraduate Curriculum Study Committee took all these models, abstracted their salient differences and surveyed the faculty to assist in selecting the school's curricular model. Faculty were also surveyed as to what should constitute core content. The following decisions were made for the curricular model adopted for the revised undergraduate program (see Table 4):

1. General education core content should occur throughout the curriculum.
2. Nursing core content should occur throughout the curriculum.
3. Health Sciences core content should occur throughout the curriculum.
4. Electives should occur throughout the curriculum.
5. Departments should offer an intensive elective at the undergraduate level.
6. The student should have an option not to choose an intensive elective and may therefore take a more general course of study.
7. The faculty voted to leave the sequencing of material open as areas of core content were worked on.
8. The following content areas were accepted to be worked on and moved into the development of courses: I. Human Development Theory (normal); II. Interpersonal or Interactional Theory; III. Nursing Process; IV. Dynamics of Illness (pathophysiology, cultural, psychosocial); V. Evolution and Future of the Health Care System; VI. Health Care Delivery Process and Patterns; VII. Social Activist's Role in Health Care Changes; and VIII. Research and Scholarship Skills.

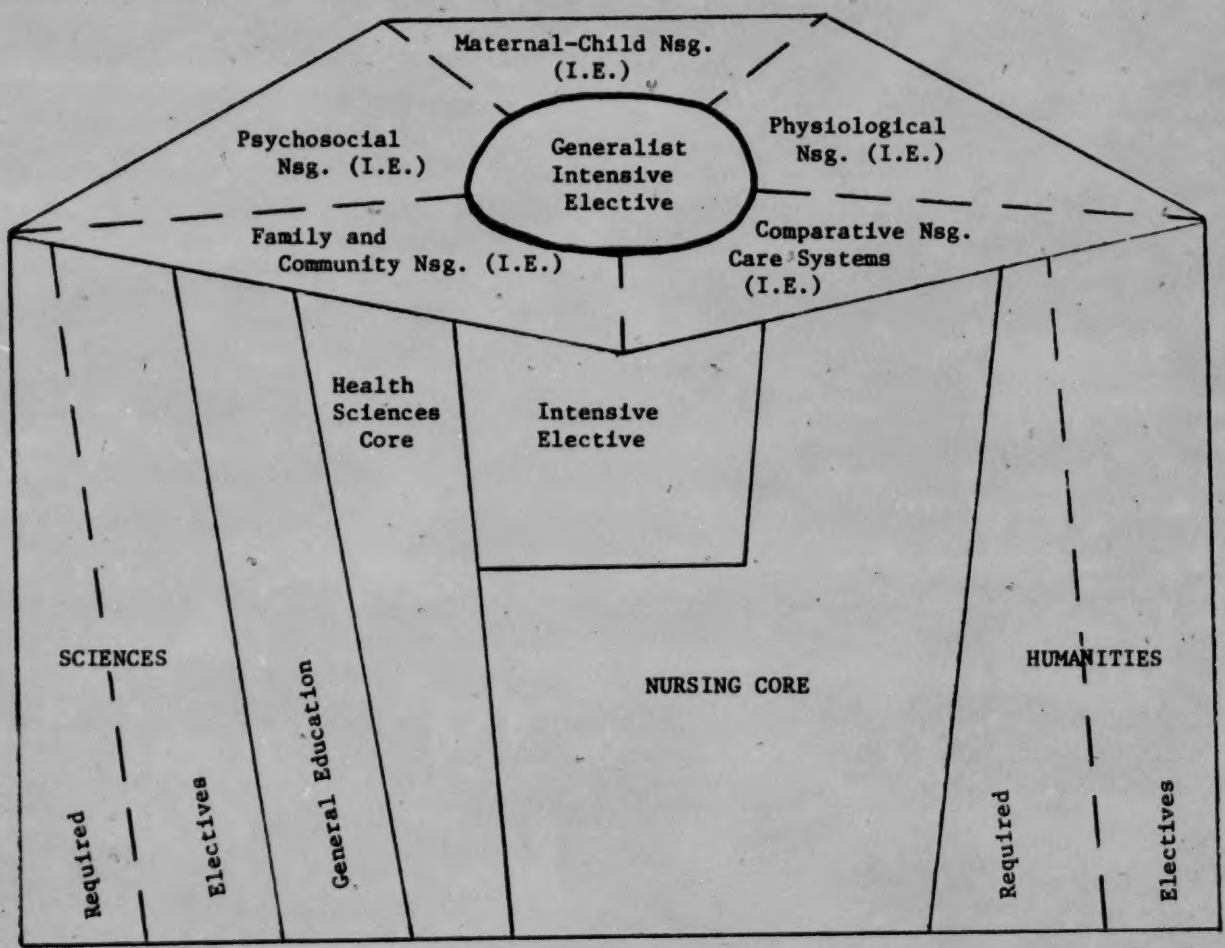
Another content area called Social and Cultural Systems was later added. Some of the areas were combined for task force work. The work undertaken by these task forces is described under the accomplishments for Aim Three: "Definition of the Curriculum System."

Summary of Actions Taken and Results Produced

The accomplishments for the aim "Formulate a Conceptual or Theoretical Framework for Curricular Changes," are summarized in Table 5 as "Actions Taken and Resulting Activities Related to Questions and Objectives of Aim Two Posed in Project Grant Proposal for Future Curriculum Implications, 1970-72." Blocks

TABLE 4

CURRICULAR MODEL ADOPTED FOR THE REVISED UNDERGRADUATE PROGRAM



(I.E.): Intensive Elective

TABLE 5

ACTIONS TAKEN AND RESULTING ACTIVITIES RELATED TO QUESTIONS AND OBJECTIVES OF AIM TWO POSED IN PROJECT GRANT PROPOSAL FOR FUTURE CURRICULUM IMPLICATIONS, 1970-1972

QUESTIONS/OBJECTIVES	ACTION TAKEN	RESULTING ACTIVITIES
1. What are the characteristics of the present students and what implications does that have for a new curriculum? (Related to Question 3/Sub-aim 2.1)	Data collected on some of the existing student population.	Implications for the curriculum reviewed by the Undergraduate Curriculum Study Committee.
2. What does the faculty believe in terms of the long-range goals of undergraduate education? (Question 5/Sub-aims 2.2 - 2.4)	Task Force on Long-Range Goals formed.	Task force report and recommendations presented and discussed.
a. What is the school philosophy? (Sub-aim 2.3)	Philosophy Task Force developed.	Working statements of philosophy accepted by faculty.
b. What should the terminal objectives for the baccalaureate graduate be? (Sub-aims 2.2 and 2.4)	Objectives Task Force formed. Faculty workshops conducted.	Proposed terminal objectives developed and approved by faculty. Statement of description of the graduate of the new BSN Program accepted by faculty.
c. What should the model of the curriculum be? (Sub-aims 2.5 - 2.8)	Models Task Force formed. Departments surveyed as to their ideas of content and behaviors desired.	A review of curricular models of schools of nursing. Contrasting models presented in workshops to the faculty. Ten different models proposed by the faculty. Some criteria in relation to models presented. Curricular model adopted. Core content voted on by faculty.
3. What are the views and plans of other disciplines related to nursing? (Related to Question 7/Sub-aim 2.2)	Other health sciences disciplines invited to join task forces. The Schools of Medicine and Social Work presented their curriculum outlines and plans. Input from nursing service administrators and staff nurses sought.	Several disciplines were represented on a number of the task forces. Suggestions were reviewed for their objectives along with other materials.
4. How can all this material move into course outlines? (Related to Question 8/Sub-aim 2.7)	Task forces representing different areas of core content developed.	Core course content outlines and electives and prerequisites would be prepared for approval by Fall, 1972.

of decisions; logically interrelated with one another, and the material that was covered in the task forces; were made in the areas of philosophy statements, terminal objectives, and a curricular model with proposed areas of core content. All curricular decisions about materials were made in a general faculty meeting.

Contributions of Project Grant

The seventeen schools surveyed for testing information by the project grant office were also asked to share their conceptual frameworks, objectives, philosophy of nursing, statements about learning, evaluation, research reports on their curriculum and course outlines. The materials received were circulated to the Undergraduate Curriculum Study Committee, chaired by the project grant Director, and made available to faculty. The project grant office continued to provide support services in the development of strategies to facilitate curriculum planning by processing documents produced by faculty and planning for workshops.

An enrollment increase which would raise the student body from 800 to approximately 1,000 undergraduates by 1973 was projected. In order to assist in the advisement of students in response to this projected increase as well as to compile more data on the description of students, a new 20 hour/week position was created for the project grant. The Advisor/Research Assistant was to divide her time equally between advising in the Undergraduate Office and gathering data from student records. A graduate student was to be hired to assist with data analysis. The student profile study is described under the accomplishments for Aim Five: "Results of Student Evaluation."

ACCOMPLISHMENTS RELATED TO AIM THREE THROUGH SECOND PROJECT YEAR, 1973: PROPOSE A REVISED CURRICULAR PLAN FOR THE BACCALAUREATE PROGRAM IN NURSING

The specific objectives for this aim were:

3.1 Define the curriculum system.
3.2 Describe the instructional system.
3.3 Delineate an evaluation system.

Work undertaken for this aim is described under the headings Definition of the Curriculum System (3.1), Description of the Instructional System (3.2), and Delineation of the Evaluation System (3.3).

Definition of the Curriculum System

To define the curriculum system a third group of Task Forces was formed in 1972 around seven areas of core content: 1) Human Development, 2) Interpersonal or Interactional Theory, 3) Nursing Process, 4) Dynamics of Illness, 5) Evolution and Future of the Health Care Systems and Health Care Delivery Process and Patterns, 6) Research and Scholarship Skills, and 7) Social and Cultural Systems and the Social Activist's Role in Health Care Changes. The Task Forces were asked to:

a. Review ideas already proposed.
b. Encourage brainstorming to see if further topics, units, and subtopics were needed.
c. Review all literature and background sciences and disciplines.
d. Review all previous course outlines and any related material for additional ideas.
e. Review the philosophy, objectives, and model already accepted.

Materials from the task forces on content, course objectives, learning approaches, references, possible utilization of clinical facilities, and credit allocations for various units were submitted to the project grant office. Grant personnel identified duplication of content and proposed an overview of how these materials would interdigitate. The Undergraduate Curriculum Study Committee studied the synthesis, made some changes, and circulated a revised edition to all faculty April, 1972. The task forces then developed course objectives, outlines, and credit allocations.

The Undergraduate Curriculum Study Committee reviewed each course so that continuity would be insured. Faculty meetings were subsequently held September, 1972 to discuss these materials. Finally, faculty voted September, 1972, that the revised curriculum would consist of 194 credits of which 103 would be in nursing. The expectation was that every nursing course would be taught every quarter. Had an administrative feasibility study been done at this time, the study would have revealed the impossibility of such planning. The curricular revisions from the original pattern are described under the Accomplishments for Aim Four: "Modifications of the Revised Curriculum." For the distribution of credits and the rotation patterns, September, 1975, see Table 6. The curricular materials were approved by the appropriate University Curriculum Boards in November, 1972, and by the State Board of Nursing in Jamuary, 1973. Implementation of the revised curriculum was to be initiated Autumn Quarter, 1973.

Three major organizing principles of the revised curriculum. The plan of the revised curriculum was to structure learning so that a student would first proceed to study normal behaviors and then study normal and abnormal phenomena at a more complex level. In addition, the student was expected to become increasingly aware of sociocultural principles that would assist in redefining what constituted "normal" and "abnormal" behaviors.

The first organizing principle of the curriculum was the application of the nursing process. By "nursing process" faculty meant the systematic use of the scientific method to assess, plan, implement, and evaluate the nursing care needs of patients. Nursing students would begin to learn to use this process as they assessed the health status and needs of clients. They would expand its use as they applied the nursing process in the care of ill patients of all ages with acute or chronic health problems. How the nursing process would be applied in different ways in institutions and communities nationally and internationally would be considered.

TABLE 6

BACHELOR OF SCIENCE IN NURSING DEGREE PROGRAM PATTERN

FIRST YEAR COURSES FOR THE NURSING CURRICULUM

Chemistry 101 (5), General and Chemistry 102 (5), Organic. Both courses must be completed prior to beginning the professional part of the program. See Admission Criteria for specific information.	10
Math 105 (5), Elementary Functions or Math 106 (3), Introduction to Finite Mathematics.	5 or 3
Psychology 100, General, or Psychology 101, Psychology as a Social Science.	5
Anthropology 202, Principles of Social Anthropology or Sociology 110, Survey of Sociology.	5
Freshman English (composition).	5
PE 205 - Biomechanics for Nursing. Transfer students outside the University will take this course the first quarter of the Professional Program; therefore, transfer students will need 17 elective transfer credits.	2
Electives	15
	45

SUMMER QUARTER ENTRY POINT CURRICULUM PATTERN

SUMMER QUARTER ENTRY TO PROFESSIONAL PART OF PROGRAM	AUTUMN QUARTER	WINTER QUARTER	SPRING QUARTER
Conjoint 317 Introductory Anatomy and Physiology 6 Microbiology 301-302 5 Elective (or P.E. 205 if transfer student) 2 13	Conjoint 318 6 Nutrition 319 3 Pharmacy 315 3 Elective 3 15	N281 Nursing Process I 6 N263 Communication in Helping Relationships 3 N297 Human Development I 4 Elective 2 15	N302 Nursing Process II 6 N303 Psychosocial Care in Adaptive & Maladaptive Behaviors I 2 N300 Human Development II 4 Statistics 3 15
OFF	N321 Nursing Care of Ill Adults & Children I 4 N322 or 324 Laboratory 8 N361 Cultural Variation and Nursing Practice 3 15	N323 Nursing Care of Ill Adults & Children II 4 N324 or 322 Laboratory 8 N405 Care Systems Analysis 3 15	N325 Nursing Care of Ill Adults & Children III 4 N326 Laboratory 8 N406 Intro. to Research 3 15
N403 Psychosocial Care in Adaptive & Maladaptive Behaviors II 3 N407 Psychosocial Lab 7 Elective 3 13	OFF	N400 Family-Centered Maternal-Child Nursing in the Community 6 N401 Maximizing Health in the Community 2 N402 Maximizing Health Lab 7 N408 The Profession of Nursing 2 17	N423 Nurse Practitioner in Special Fields (This will be elective in field or area of choice.) 12 12

WINTER QUARTER ENTRY POINT CURRICULUM PATTERN

WINTER QUARTER ENTRY TO PROFESSIONAL PART OF PROGRAM	SPRING QUARTER	SUMMER QUARTER	AUTUMN QUARTER
Conjoint 317 Introductory Anatomy and Physiology 6 Microbiology 301-302 5 Elective (if transfer student: PE 205 and 3 cr. elective) 5 16	Conjoint 318 6 Nutrition 319 3 Pharmacy 315 3 Elective 3 15	N281 Nursing Process I 6 N263 Communication in Helping Relationships 3 N297 Human Development I 4 Elective 2 15	N302 Nursing Process II 6 N303 Psychosocial Care in Adaptive and Maladaptive Behavior I 2 N300 Human Development II 4 Statistics 3 15
OFF	N321 Nursing Care of Ill Adults & Children I 4 N322 Laboratory 8 N361 Cultural Variation and Nursing Practice 3 15	N323 Nursing Care of Ill Adults & Children II 4 N324 Laboratory 8 N405 Care Systems Analysis 3 15	N325 Nursing Care of Ill Adults & Children 4 N32[illegible] Laboratory 8 N406 Introduction to Research 3 15
N403 Psychosocial Care in Adaptive and Maladaptive Behaviors II 3 N407 Psychosocial Lab 7 Elective 3 13	OFF	N400 Family-Centered Maternal-Child Nursing in the Community 6 N401 Maximizing Health in the Community 2 N402 Maximizing Health Lab 7 N408 The Profession of Nursing 2 17	N423 Nurse Practitioner in Special Fields (This will be elective in field or area of choice.) 12 12

DISTRIBUTION	Cr.
Nursing Credits	109
Natural Sciences (30-32)	
Chem. 101-102	10
Math 105(5) or 106(3)	5-3
Conjoint 317-318	12
Microbiology 301-302	5
Pharmacy 315	3
Statistics	3
Social Sciences (13)	
Psych. 101 or 100	5
Anthro. 202 or Soc. 110	5
Nutrition 319	3
English composition	5
PE 205	2
Electives	25-27
	192

STATISTICS

During the curriculum, a course in statistics will be required. Currently, those available are:

Biostatistics 472 (3), Applied Stat. in Health Sciences
Sociology 223 (5), Social Statistics
Educational Psych. 490 (3), Basic Educational Statistics
Q. Sci. 381 (5), Elementary Statistical Methods
Q. Sci. 381 (5), Intro. to Probability and Statistics

Dr. Rhabe de Torquay, Dean of the School of Nursing, University of Washington 4/75

A second organizing principle was the broadening and deepening of knowledge and skills related to specific health factors of individuals and groups of people in need of health care or to prevent illness states.

A third organizing principle was related to ways to maximize use of health resources of families, health institutions, and community organizations.

Core content areas and how they were operationalized. From the materials of the seven Task Forces, six core content areas were operationalized as follows:

1. Human Development - Although this core would be emphasized throughout the curriculum, two courses would be offered so students could systematically compare and contrast similarities and differences of human development at various ages and various sociocultural environments. This would provide a greater transference of learning to patient care and health teaching.

2. Interpersonal-Interaction Skills: Interviewing and Understanding Communication - This core was desired to be emphasized early in the program and integrated throughout the total program. In the new curriculum two courses would help students gain knowledge and skills related to this core: (a) Communication in Helping Relationships and (b) Psychosocial Care in Adaptive and Maladaptive Behaviors. At the beginning of the nursing sequence this content would be applied, refined, expanded, and practiced throughout the program.

3. Social, Cultural, and Health Care Systems - Because society and health care were becoming increasingly complex and diversified, the faculty wanted this core of knowledge in the revised curriculum. This content was operationalized by developing two courses, (a) Care Systems Analysis and (b) Cultural Variation and Nursing Practice. Some introduction to a general systems approach would be given in the course on Nursing Process, and later the history, theory and analysis of social, cultural, and health care systems would be given in the two new courses which would be offered later in the program of study where they require a high level of cognitive and intellectual skills.

4. Research and Scholarship Skills - A statistics course was required and a research course was designed for the revised curriculum. Students would be expected to gain an introductory knowledge and skills related to the research process which would help them to become knowledgeable consumers of research literature and to stimulate their interest in nursing research.

5. Nursing Process and Skills in Giving Care to Patients - This core area would be interwoven into all of the nursing courses and increased in complexity and resources utilized.

6. Beginning Specialization in a Field of Nursing - This core was to further develop, critically examine, and synthesize nursing care in a specialized area with focus upon practice, leadership skills, application of selected theoretical concepts, research findings, and assessment of issues, problems and forces impinging upon the quality of care and health care modes. The student would select a specialized area for clinical experience in an urban or rural setting.

A description of the revised courses in the new undergraduate program, September, 1975, is found in Appendix F.

Description of the Instructional System

A planned instructional system was to be developed for the revised curriculum. In order to design the instructional system required by the new courses, initial emphasis was placed on developing faculty's knowledge of teaching strategies and resources. A workshop on mediated instruction was held Summer, 1971, in which a physician, dentist, and two nursing doctoral students described their research on the use of audiovisuals in teaching. A specialist in educational media was appointed September, 1972 to work with the project grant office to acquaint the faculty with new methods of instructional media and to consult on the development of audio-visual aids. Grant travel funds were used for faculty to attend conferences in order to provide additional input on the latest developments in instructional systems. Faculty delineation of improved instructional means is described under the accomplishments of Aim Four: "Selection of Teaching and Evaluation Strategies."

Delineation of an Evaluation System

A major evaluation plan based on a model was developed and initiated. The definition of evaluation selected by the project grant staff was: "Educational evaluation is the (process) of (delineating), (obtaining), and (providing) (useful) (information) for (judging) (decision alternatives). This statement contains eight key terms (set off in parentheses), each of which will be found to have significant implications for the processes and techniques of evaluation."[1]

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[1] D. L. Stufflebeam, and others, eds., Educational Evaluation and Decision Making (Itasca, Ill.: F. E. Peacock, Publishers, 1971), p. 40.

The model of evaluation which was selected as being most helpful was the revision of the Phi Delta Kappa model by Gephart.[1] A discussion of how the model was being applied was presented in a paper "A Model of Curriculum Evaluation Applied to a University Baccalaureate Program" at the American Educational Research Association Annual Convention in February, 1973.[2] This paper reviewed some of the major theoretical issues in curriculum evaluation based on a review of literature. Factors that would modify the scope and rigor of the evaluation were identified. Dr. Hulda Grobman, nationally known author and consultant in curriculum evaluation, was hired to critique the evaluation plans. Dr. Percy Peckham, Educational Psychologist, was also hired to critique the Wolf and Smith (1973) paper. These evaluation plans were presented to the Program Council, the curriculum coordinating unit in the School of Nursing that replaced the Undergraduate Curriculum Study Committee in 1973.

The grant staff proposed seven specific evaluation goals which subsequently guided the project evaluation efforts. Methods were selected which were felt would best attain the objectives of the evaluation plan.[3]

I. Objective One - Evaluate whether or not the curricular materials reflected the desired direction of change.

   A. Method - Content analysis would be used against criteria such as:

      1. Internal logical consistency between and among the philosophy, objectives, learning theory, content outlines, and evaluation methods.

      2. External standards such as:
         a. The levels of behaviors in the objectives were consistent

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[1] W. J. Gephart, "The Phi Delta Kappa Committee Evaluation Model: One Member's View," in Curriculum Theory Network Monograph Supplement, Curriculum Evaluation: Potentiality and Reality, ed. Joel Weiss (Ontario, Canada: Ontario Institute for Studies in Education, 1972), pp. 115-131.

[2] V. C. Wolf and C. M. Smith, "A Model of Curriculum Evaluation Applied to a University Baccalaureate Program" (paper available from Educational Resources Information Center).

[3] The methods and data sources proposed for meeting Evaluation Objectives I to VII are presented in this section as they were submitted to the Division of Nursing (Grant Progress Report, February, 1973.)

with the behaviors considered desirable by members of the profession.

b. All major areas of content felt essential by the profession were included.
c. Materials reflected incorporation of the latest knowledge in the fields addressed.
d. Materials reflected new ideas that would lead the profession in developments not commonly in practice.
e. The changes were in the direction and amount stated as desired by the conceptual framework, rationale for change or decisions made by the faculty.
f. The curriculum could be changed easily without major revisions.
g. Continuity, sequencing, and integration were considered in setting up the learning activities and objectives.
h. Provisions for multiple entry points, challenge exams, and the increased use of audiovisuals and electives were incorporated (when compared with the former curriculum).
i. Provisions were made for interdisciplinary courses and a three-year-and-one-quarter degree program.

B. Data Source - The course materials of the old and new curricula would be rated by a panel of outside experts hired from consultant fees on the basis of standardized forms and these criteria. Some rating of the levels of objectives and content of the old curriculum had already been completed.

II. Objective Two - Evaluate whether or not the performance of students of the revised curriculum was significantly superior to that of students of the old curriculum on outside criterion tests of abilities (outside of each program).

A. Method - Three areas were considered that were important to nursing and which have been the subject of considerable study in the profession:

1. Creativity - The tests that seemed the most helpful were the Social Improvement Tests by Paul Torrence and the General Nursing Problems Tests by June Bailey. If these tests were used, comparisons of the performance of the students in our old and new programs could be made with performance of these tests in a four-year baccalaureate nursing program at the University of California, San Francisco.

2. Problem Solving - Problem solving was considered a skill basic to nursing. The best paper and pencil test available to nursing appeared to be a Simulated Clinical Nursing Tests to Assess Problem Solving Behavior of Baccalaureate Students by McIntyre, et al. This test was developed as a means of measuring nursing student performance differences as a part of a curriculum revision at the University of California. Using this test would allow us to compare the performance of our students in the old and new curriculum with that of the University of California. Our own faculty was working on developing more of these simulated clinical tests for nursing. Grant funds had been used to support some

of the cost of supplies for developing a simulated clinical sequential test on application of nursing process by a professor in Nursing Fundamentals.

3. Clinical Performance Rating - An extensive review of the literature and experts in this area revealed that all tools known were inadequate. Efforts to develop tools would be initiated. From an evaluation of observations in the clinical area, four major aspects of clinical performance would need to be developed as a basis for a curriculum evaluation:

   a. Coding system for recording direct performance evaluation. Our objectives would be used to determine the criteria and aspects to be included in direct observation.
   b. Coding system for analyzing charting information.
   c. Interviewing guides for interviewing students whose performance was observed to determine the processes and knowledge which guided the behavior.
   d. Multi-media clinical situational tests similar to the type developed by Mesa College.

   Patients' perceptions of the care they received was also under consideration as another aspect which could be included in evaluation.

III. Objective Three - Determine whether or not the students of the old and revised curricula were meeting the objectives of each curriculum.

A. Method - (1) Two National League for Nursing tests (Medical-Surgical and Maternal and Child) were being administered to look at achievement in relation to the old curriculum. These tests would continue to be given to students in the new curriculum. (2) A formative and summative series of challenge exams was being developed. The University of Washington School of Nursing was working with other schools from the Western Region, which belong to Western Interstate Commission for Higher Education for Nursing, to develop a test item pool. This would make a wide number of items available to us from which content valid items could be selected with the highest reliability. Modular test units in relation to concepts were being discussed. (3) Post graduation follow-up studies of the present program were completed in the past few years in which students and supervisors were asked to rate their performance in relation to behaviors derived from the objectives of the present program. This approach had many problems and it was questioned whether this was the best method of follow-up.

IV. Objective Four- Evaluate the time and cost effectiveness of each curriculum.

A. Method - With the assistance of the Business Office of the School of Nursing, an attempt would be made to collect data on the following questions:

1. What was the cost of alternative rotation patterns being suggested?
2. What was the cost per credit of the major units of the curriculum?
3. What was the average cost per student?
4. What was the cost of the use of other services?
5. What was the relationship between the amount of time spent on blocks of content and the achievement in that unit?
6. What instructional alternatives would increase achievement and reduce costs?

The Business Office of our School was working with a new committee to computerize budget and student records.

V. Objective Five - Evaluate how the faculty and students' needs, characteristics, abilities and the environmental press related to achievement and the program goals.

A. Methods - Robert Stern's et al, Activities Index, College Characteristics Index and Organizational Climate Index, the Myers-Briggs Type Indicator and Shostrom's Personality Orientation Inventory were selected as the best psychological tests to be used, on the basis of an extensive review of the literature, nursing research, and an item-by-item analysis of the content. Other sources of data would be the battery of tests from the Washington Pre-College Entrance Examination Program. These data would be compared with the achievement data described above.

VI. Objective Six - Evaluate the type of instruction used in each curriculum.

A. Method - Data would be gathered in relation to the following questions:

1. What was the incidence and type of audiovisuals used in each curriculum?
2. What was the level of questioning in instructions and how did it relate to the objectives?
3. What types of classroom interaction were occurring?
4. How was the teaching rated by students?

B. Data Source - Classroom observation would be done by graduate students research assistants. Records of the use of audiovisuals were available.

VII. Objective Seven - Evaluate the curricular process used to bring about the curriculum revision.

A. Method - Data would be gathered in relation to the following questions:

1. What forces helped bring about the changes?
2. What forces acted as barriers or modifying forces?
3. How were the decisions made?
4. What were the communication networks?
5. What were the problems arising from the interdependency of decisions?

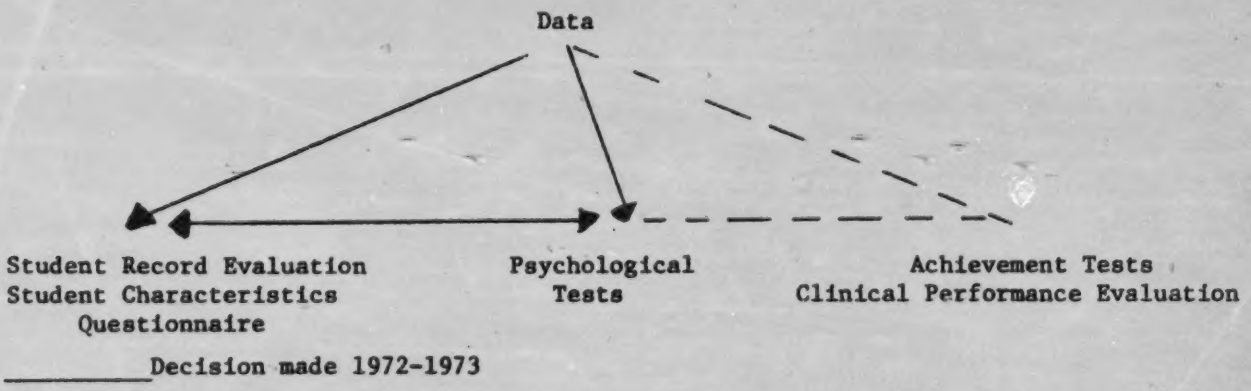
B. Data Source - Committee meeting minutes would be utilized. Administrative reorganization of the School was occurring and this was the subject of a separate study. These data could be of assistance in determining additional administrative effects.

The Undergraduate Curriculum Study Committee had recommended that criteria for the development of challenge examinations be established and that some guidelines for those developing the challenge examinations be made available to the faculty.

Plan for student evaluation. Table 7 presents the broad curriculum evaluation plan that would look at the interaction of student characteristics and a battery of psychological and achievement tests.

TABLE 7

OVERALL EVALUATION DESIGN AND DATA COLLECTION PROCEDURES



The overall plan was to collect data from the students' records when they entered nursing as sophomores and again after graduation. The psychological tests were to be taken by the student during the first quarter of nursing courses and again in the last quarter of the senior year. Clinical performance evaluation would be done for a sample of senior students in the existing program. Achievement tests were to be used at various points. The plan allowed for gathering baseline data. Since the last students in the existing program would graduate Spring, 1976, several classes could be evaluated before the present nursing program ended, and

initial data could be gathered on two classes in the revised curriculum. The conceptual framework, developed by Dr. V. Wolf-Wilets, upon which the psychological tests were chosen is found in Appendix G.

The following purposes were delineated for the evaluation approach in relation to the student characteristics, psychological test, and achievement data:[1]

1. Describe the social and psychological characteristics of our students as a basis for information about what the background of our students is like for curriculum implications.

2. Describe the social characteristics of our students so they can be compared with the national random sample of nursing students.

3. Describe the social, psychological and achievement characteristics of our students so they can be compared with other former studies of nursing students at the University of Washington.

4. Describe if the characteristics of the student body appear to be changing over time when compared to former studies done here at the University of Washington.

5. Determine which social, psychological, and achievement variables predict which students will succeed in our program.

6. Determine if prediction of success is based on the same variables for the old and new curriculum.

7. Describe what psychological changes on selected tests occur in our students during the time they are in our program.

8. Determine if the psychological changes found in students during their time in the program are in the direction that would be described as desirable by the goals of our curriculum and the literature in nursing.

9. Compare the characteristics of our student body with norms established by psychological tests and descriptions of other nursing students or nurses described in the literature.

10. Compare the psychological, social, and achievement characteristics of the seniors and sophomores in the old and new curriculum.

11. Evaluate whether or not the performance of students of the revised curriculum is significantly superior to that of students of the old curriculum on outside criterion tests of abilities.

12. Determine whether or not students of the old and revised curricula are meeting the objectives of each curriculum.

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[1] V. Wolf, "A Brief Summary of the Purposes of the Evaluation Approach and Progress in Relation to Each Purpose," unpublished paper, June, 1975, distributed to the Program Council, July, 1975.

It should be noted that purposes 6, 10, 11, and 12 involved comparisons of students in the existing and revised curricula. As the first class in the revised curriculum would not graduate until 1977, after the grant had ended, it was not possible to meet those objectives under the present grant.

Student testing initiated. The first Student Record Evaluation data were collected in Spring and Summer, 1972, by the Institute of Educational Research (now a division of the University of Washington Educational Assessment Center). The Institute collected data on all students who were enrolled Spring, 1972, on the form University of Washington School of Nursing Student Record Evaluation.[1] After September, 1972 this collection was continued by the project grant Research Assistant/Advisor. During the year 1972-73, data were compiled from the records of approximately 800 students. With the assistance of the Institute of Educational Research, the Student Characteristics Questionnaire was also designed.[2]

A Human Subjects Review for the psychological testing of students and completion of the Student Characteristics Questionnaire (biographic and demographic data) was approved by the University Behavioral Science Review Committee. The psychological test battery included the Myers-Briggs Type Indicator (MBTI), Shostrom's Personality Orientation Inventory (POI), and two Stern's Environmental Indices -- the Activities Index and College Characteristics Index (AI and CCI). In the Fall of 1972, 257 sophomores entering the existing curriculum were asked to take this battery of psychological tests and complete the questionnaire. In the Spring of 1973, 150 seniors were contacted to take this battery of evaluation instruments. The results of the student evaluation conducted are described under accomplishments of Aim Five: "Student Records" and "Psychological and Student Characteristics Test Data."

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[1]The form revised by project grant personnel January, 1975 is found in Appendix M.

[2]The Student Characteristics Questionnaire is available in the School of Nursing.

Plan for faculty evaluation. In addition to testing students, all academic faculty of the School of Nursing on half-time or more appointments were asked by the project grant office to take a battery of tests in relation to the curriculum revision, Spring, 1973. Participants were asked to complete: 1) a biographical survey, Faculty Characteristics Questionnaire (FCQ), developed by the project grant Assistant Director, 2) the Faculty Perception of the Curriculum Revision (FPCR) questionnaire, developed by the project grant Director, and 3) the Stern's Activities Index (AI) and Organizational Climate Index (OCI).[1] The Stern's instruments were administered so that faculty's interests and perceptions of the school could be compared with students' interests and perceptions of the school. The Bureau of Testing administered the testing so that none of the project staff or faculty would have information as to the identity of the individual involved. All procedures were reviewed by the University committee for the protection of rights of human subjects and the consent forms and procedures were approved.

Table 8 presents the number of faculty who took each instrument, Spring, 1973:

TABLE 8

FACULTY PARTICIPATION IN TESTING

	FCQ	FPCR	OCI	AI	Total Number Possible
Spring, 1973	46	45	47	49	113

In the original evaluation plan, faculty were to be given the opportunity to again participate Winter, 1976 in order to obtain measurements as the revised curriculum was implemented. New faculty from Winter, 1973 through Winter, 1976 would be given the opportunity to participate as they accepted their appointments and again as a part of the repeated testing. However, no further testing of faculty was conducted after Spring, 1973 (see Appendix C). The restuls of faculty evaluation

[1]The Faculty Characteristics Questionnaire and the Faculty Perception of the Curriculum Revision questionnaire are available in the School of Nursing.

are reported under the accomplishments for Aim Five: "Summary of Faculty Characteristics Questionnaire and Psychological Tests" and "Summary of Faculty Perception of Curriculum Revision Questionnaire."

Tests reviewed and/or tried. Efforts were continued to find means of evaluating achievement in the existing curricular plan. The College Proficiency Examination Program (CPEP) tests developed by New York State were evaluated by faculty to see if these could be used to evaluate students' performance. None of the faculty groups who reviewed the examinations felt that the tests were adequate. Some of the College Level Examination Program (CLEP) tests by the Educational Testing Service, such as Human Development, evaluated by faculty as a means to assess the knowledge base gained in the present and revised programs were similarly rejected.

The project grant office continued to search for means of evaluating nursing performance in the clinical area. Even though an extensive search was made, only a few tools for clinical observation were obtained from other sources, such as the Slater Nursing Competencies Rating Scale. Some of the grant personnel observed senior students in the clinical area to evaluate these clinical performance tools. It was felt that new tools would have to be designed to measure clinical performance. Funds were then reallocated to create a part-time position of Evaluator whose focus would be clinical performance evaluation.

Summary of Contributions by Project Grant

The project Director continued to chair the Undergraduate Curriculum Study Committee, the committee responsible for seeing that the revised curriculum was developed. The Assistant Director of the grant also participated in that committee. A large amount of time was spent by the grant Directors in coordinating, reviewing, revising, and drafting curricular materials. A "Yellow Book" of revised course offerings was compiled and circulated to faculty.

Extensive time was spent developing an evaluation plan, selecting and developing instruments, and testing the students and faculty. With the assistance of the Institute of Educational Research, forms for gathering data describing students in the program were designed and data collection from student records initiated. This collection of student record evaluation data was continued by the project grant Research Assistant/Advisor. A graduate student was hired to assist with data analysis. Two instruments included in the faculty testing program were designed by project grant staff. Consent forms were formulated and Human Subject Review obtained. All tests were loaded and unloaded by hand in testing packets with only a research code number on them. A coding system was developed for the instruments administered. The project grant staff supervised the test administration and analyses.

Achievement examinations were requested and circulated to faculty. Project grant staff summarized faculty reviewers' comments on the use of these tests for evaluating achievement in the existing program. To the extent that funds permitted, the project grant supported faculty travel to conferences related to an improved instructional system. Permission was secured to use funds in ways that would maximize the School's revision efforts in implementing new teaching strategies. Commercially produced audio-visual materials and blank video or audio tapes for faculty development were purchased by the grant.

ACCOMPLISHMENTS RELATED TO AIM FOUR FROM THIRD THROUGH FIFTH PROJECT YEAR, 1976:

IMPLEMENT THE PROPOSED CURRICULUM REVISION

The specific objectives for this aim were:

4.1 Describe the input for the curricular plan.
4.2 Delineate the content for the curriculum.
4.3 Propose alternative processes for presentation of content.
4.4 Evaluate the output for the implementation of the plan.

The major work related to input for the curricular plan (4.1) was undertaken by faculty task forces which were described under the accomplishments for Aims One and Two, 1970-1972. This section reports modifications of the revised undergraduate curriculum subsequent to its acceptance Autumn, 1972, and describes the input for the curricular pattern evolved for the Registered Nurse who was a graduate of an Associate Degree or Diploma program. The delineation of the content for the curriculum (4.2) was undertaken in the third project year and has been reported under the accomplishments for Aim Three: "Core Content Areas and How They were Operationalized." Activities related to objective 4.3 are described in this section under the headings of Selection of Teaching and Evaluation Strategies, Selection of Learning Resources, and Faculty In-service for Teaching Physical Assessment. Evaluation of the implementation of the new nursing courses (4.4) is discussed under Curriculum Coordination and Evaluation Efforts.

Modifications of the Revised Curriculum

As was discussed under accomplishments for Aim Three, "Propose a Revised Curriculum Plan for the Baccalaureate Program in Nursing," the courses in the revised undergraduate program were developed and approved Autumn, 1972. Implementation of the revised curriculum was initiated Autumn Quarter, 1973 with students enrolled in the pre-professional portion of the curriculum. The new nursing courses were first offered Winter Quarter, 1975.

Committee structure. Work on implementing the revised curriculum was moved from the Undergraduate Curriculum Study Committee, which was dissolved November, 1973, into the Standing School Committee on Curriculum, the Program Council. An Administrative Task Force for Implementation of the (New Basic Baccalaureate) Curriculum (ATFIC) was formed by the Acting Dean August, 1974 in order to facilitate administrative implementation of the revised curriculum. Membership of ATFIC consisted of the five Department Chairpersons, Program Council Chairman, and the Director of the Undergraduate Program who also chaired the Task Force .

Curricular revisions from the original pattern. As the curriculum moved into the implementation stage, several changes were debated and accepted. These involved psychosocial, family and community nursing, and the professional aspects of nursing.

A nine credit nursing course which combined the content areas of Public Health and Psychosocial Nursing, N401 Maximizing Health in the Community, was re-examined. Administratively, it was now felt desirable to separate these two content areas. Investigation of the clinical areas indicated that student placement would be difficult if they remained combined. In addition, there was the feeling on the part of both subject groups that not enough content and clinical time was available to them in the original proposed courses. As a result of these deliberations, the decision was made by faculty to separate the two content areas and clinical experience.

Three new course outlines were submitted by the Department of Psychosocial Nursing: N303 Psychosocial Care in Adaptive and Maladaptive Behaviors I (reduced from five to three credits), N403 Psychosocial Nursing Care in Adaptive and Maladaptive Behaviors II (three credits), and N407 Psychosocial Nursing Practice (seven credits). These courses were approved by faculty December, 1974 (see Appendix F for a description of these courses). Two new courses were presented by the Department of Family and Community Nursing, N401 Maximizing Health in the Community-Theory (two credits) and N402 Maximizing Health in the Community-Clinical

(seven credits), and accepted by faculty January, 1975 (see Appendix F for a description of these courses).

Considerable discussion focussed on N408, a course on professional issues in nursing. An initial decision had been made to omit this offering in the revised curriculum. A second decision was made by faculty in January, 1975, to accept N408 as a required two credit course. Because the credit hour load for the quarter in which N408 was scheduled was six theory hours and twenty-two clinical hours equaling a total of twenty-eight hours for 17 credits, a sub-committee of Program Council developed options for alternative placement of the content or the course. A final decision was made in May, 1976 to integrate the units from N408 into other courses where they were relevant.

The implementation of the nursing courses N321-N326, taught jointly by the Physiological and Maternal Child Nursing Departments during 1975-1976, resulted in additional changes. The planned curricular revisions from the original for these courses are described later in this section under "Curriculum Coordination and Evaluation Efforts."

Curricular Pattern Evolved for the Registered Nurse Student

Faculty voted originally to make challenge examinations available for every course in the revised curriculum. This challenge route was to replace the Comprehensive Nursing Examination for which entering registered nurse students received up to 45 credits for past nursing courses. Several problems arose in conjunction with using this route as the approach to accelerating the progress of the Registered Nurse through the revised curriculum: 1) each challenge examination would cost $25 per course (the Comprehensive Nursing Examination had been given at no charge), 2) challenge examinations needed to be taken two quarters before a student wished to be exempted from the course, 3) students who wished to take challenge examinations had to be enrolled as University of Washington students, and 4) it was felt that students might need parts of the courses in the revised curriculum and

should have a system of getting courses which would draw together in the most effective way the areas where they needed additional work.

In June, 1974, the faculty decided Program Council should appoint a committee to develop RNB program options and alternatives. The project grant office made available to the committee members resource materials that summarized what was being done by other nursing schools in the United States. The committee drafted one alternative which was presented to Program Council December, 1974. National League for Nursing Achievement examinations were evaluated by faculty to judge what credit could be granted for the revised course(s) using the examinations (see Appendix K).

The committee submitted a RNB proposal to the October, 1975 faculty meeting. It constituted a total "package" in which the curricular approach was based on explicitly stated philosophy and assumptions about RNB education. A comparison of course distributions and offerings between the generic program and the proposed alternative for registered nurses was included. Faculty voted in favor of accepting the recommendations: 1) that a maximum of 40 nursing credits be accepted (transfer credit) as lower division nursing credit for the entering RNB student from the Associate Degree Nursing program, and 2) that a maximum of 40 nursing credits be granted to the diploma student for successful completion of specified NLN Achievement Tests. Faculty and students requested that the Dean appoint a Task Force to clarify some issues raised by the proposal, such as the manner in which credit was given to entering students; the amount of credit to be allotted; the flexibility of the program to eliminate unnecessary expenditure of RNB's time, energy, and funds; the increase of upper division RNB course credits allocated to each department; and the School's policy and procedures for use of challenge exams.

Program Council appointed the Director of the Undergraduate Office as a liaison between that body and the Task Force. The Task Force requested that the project grant Director participate as a resource person. Two questionnaires were sent to faculty and registered nurse students December, 1975. A package of materials

consisting of NLN policy statements at different points in time and an RNB annotated bibliography was circulated by the project grant office to faculty and students. Copies of all references cited were made available in each Department and the Health Sciences Library. Achievement tests were reviewed by faculty for validating knowledge of the entering registered nurse student from the diploma program (see Appendix K). As a result of these activities, the issues raised were clarified and a report was submitted January, 1976. Faculty subsequently reaffirmed that all courses are open to challenge to the RNB student and that an ongoing Program Council curriculum sub-committee should deal with RNB issues and concerns.

The curricular pattern evolved for the entering registered nurse student is presented in Appendix H. The urgency of implementing a curricular pattern for the entering registered nurse student was addressed by the Dean at an All-School Faculty meeting January, 1976 (close to 300 students graduated from the registered nurse program under the old curricular plan from Autumn, 1968 through Summer, 1972; less than ten students enrolled in the revised curriculum during 1975-1976):[1]

> There is a great need for accelerating our RNB program in terms of its implementation. We have lost momentum for this program, and we presently have only a limited number of applicants. This is not because nurses do not want to pursue a baccalaureate degree, but because RN's either have no knowledge of our desire to assist them, or they have lost trust in us. All over this State nurses are requesting that state and private colleges develop a special program for them. In many cases, they want the "inverted curriculum" which would have no nursing content at all. We all know the problems that will be caused for them. If we do not let nurses know our new format and the philosophy of our RNB program immediately and recruit them into it, we will all be in deep trouble. An RNB program will be imposed upon us by outside agencies and we will lose our leadership role to those schools who meet RN educational needs.

Since that time the RNB sub-committee of Program Council, with representation from all departments, has been actively addressing the following implementation mechanisms:

1. Setting up general guidelines for a work-study option.
2. Setting up general guidelines for examination procedures and resources.

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[1]Report of Dean de Tornyay, attachment to Faculty Business Meeting Minutes, January 23, 1976.

3. Reviewing performance of RNB candidates on validation examinations as well as gathering data on any problems.

4. Providing for regular meetings of faculty teaching in the RNB pathway to facilitate coordination in learning objectives.

5. Setting up guidelines for utilization of extension options for non-matriculated students. Maintaining liaison with School of Nursing Continuing Education Office.

6. Exploring alternative options in teaching courses for matriculated non-resident RN's accepted into the upper division major.

The first course (N350) in the RNB pathway was developed and approved by faculty. This course is being taught Summer Quarter, 1976 with a work-study option. Departmental faculty are presently delineating the behavioral objectives, course content, and clinical experiences required for the upper division nursing core.

Selection of Teaching and Evaluation Strategies

As was discussed under accomplishments for Aim Three through Project Year Two, "Description of the Instructional System," emphasis was placed on developing faculty's knowledge of teaching strategies and learning resources. This emphasis continued throughout the implementation years of 1973-1976 and resulted in the delineation of an instructional system for the sophomore and junior year nursing courses, with planning underway for the senior year course offerings.

A two-day Innovative Teaching Fair demonstrating new strategies used in instruction was sponsored Spring, 1974 by the Committee on Educational Effectiveness. Included in the program were features such as "Microteaching," "Simulated Testing," "Physiological Assessment Tools," "Teaching Motor Skills with Videotape," "A Challenge Exam Using Videotape," "Student Contracts for Clinical Learning," and "Use of Patient Encounter Record for Developing Teaching Problems and Research." Autumn, 1974, the junior year faculty course coordinator was supported by the project grant to attend a national workshop on Criterion-Referenced Testing. The materials and audiotapes of these sessions were made available to faculty.

Another workshop was conducted by the Educational Effectiveness Committee Winter, 1975. Included in this program were presentations on principles and

suggestions for objective-item test construction, a comparison of norm-referenced and criterion-referenced measurement, major cultural factors influencing testing, and interpretation of the campus computer item analysis. Time was also spent on item writing and critiquing.

In the meantime, instructors teaching specific courses were meeting to further delineate the content, teaching strategies, and instructional resources needed. For example, faculty teaching nursing process delineated learning modules for Nursing Process I and II (eighteen and seven respectively).[1] Faculty outlined the advantages of the modular approach to students as follows:[2]

> First and foremost, modules are designed to enable you to learn skills on an independent basis and to advance at your rate of speed. Other benefits of the modular approach to students are as follows:
>
> 1. You will know from studying the behavioral outcomes (on the Learning Grid) exactly what is expected of you, consequently you will know precisely how to prepare for tests or clinical experience.
>
> 2. You are basically in control of the learning situation in that you can: a) select your own learning activities (e.g., view a tape, read an article, practice a technique), b) decide whether or not you need additional help from an instructor, and c) decide (within time limits) when you will take an examination over a module.
>
> 3. You are able to frequently test yourself with immediate feedback by using the behavior checklist at the end of each module.
>
> 4. If you don't pass a module with a satisfactory grade, you can count on being given thoughtful guidance by your instructor so that you can successfully complete the module on the second or even third trial test. There is no penalty for not succeeding on the 1st or 2nd trial.

A sample of the "Learning Grid," consisting of the subject content and general instructional objectives for the cognitive, psychomotor, and affective domains, for the module on "Physical Assessment Skills" is presented in Table 9.[3] The accompanying "Physical Assessment Behavior Checklist" used to evaluate students' performance in the laboratory follows in Table 10. Students' evaluation of the

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[1] Faculty from each of the five departments in the School of Nursing were assigned to teach these courses.

[2] J. Luckman and M. Niland, "Orientation Module," Nursing Process I N281 Syllabus, 1975, pp. 1-A-16-17.

[3] M. Niland, Nursing Process I N281 Syllabus, 1975, pp. 4-B-4, 4-B-5, 4-B-18.

TABLE 9

LEARNING GRID FOR MODULE ON PHYSICAL ASSESSMENT SKILLS

GENERAL INSTRUCTIONAL OBJECTIVES

SUBJECT CONTENT	A. Knows facts and terminology. COG-KNOWLEDGE	B. Applies terminology and principles to physical assessment. COG-APPLICATION	C. Demonstrates skills correctly while incorporating principles. PSYCHOMOTOR	D. Shows concern for person's comfort needs. AFFECT-VALUING
Physical Assessment 1. Terminology	A.1.1 Defines terminology and abbreviations listed in module.	*B.1.1 Uses appropriate terminology when recording findings.		
2. Anatomy/Physiology		B.2.1 Relates anatomy to area being examined, i.e., lower lobe of left lung.		
3. Principles of asepsis, body mechanics, work organization.		*B.3.1 Uses systematic approach for collecting data. *B.3.2 Assembles necessary equipment.	C.3.1 Washes hands appropriately. C.3.2 Uses body mechanics during positioning and exam. C.3.3 Cleans and/or disposes of equipment appropriately.	
4. Communication		*B.4.1 Reports and/or records findings.		D.4.1 Explains procedure to the person. D.4.2 Describes nonverbal responses.
5. Positions used when doing a physical assessment.	A.5.1 Labels physical exam positions.		C.5.1 Places person in appropriate positions for given situation.	D.5.1 Assists person to assume comfortable position.
6. Techniques: inspection, palpation, percussion and auscultation.		B.6.1 Gives examples of physical exam techniques.	C.6.1 Demonstrates techniques correctly.	D.6.1 Drapes patient without prompting. D.6.2 Warms diaphragm of stethoscope in palms of hands.
7. Physical assessment and objective data as related to nursing process.		B.7.1 Relates specific situation to appropriate source/resource of information, i.e., lab, P.E., chart, etc. *B.7.2. Relates findings of physical exam to other information about the patient. *B.7.3 Validates objective data with subjective data.		*D.7.1 Initiates objective data collection appropriately.
Areas to be examined for physical assessment 8. General appearance.			C.8.1 Inspects general contour of the body.	
9. Integumentary			C.9.1 Inspects and palpates the skin.	
10. Neurological exam (as outlined in this module).	A.10.1 Names general areas of function that are evaluated.		C.10.1 Correctly demonstrates testing of ocular movement, pupillary reflexes, peripheral vision, and hearing.	
11. Ears, nose, throat.			C.11.1 Inspects and palpates outer ear. C.11.2 Inspects nasopharyngeal cavity.	
12. Chest and abdomen.			C.12.1 Identifies parameters of organs through palpation and percussion. C.12.2 Identifies rate and rhythm of heart. C.12.3 Hears breath sounds. C.12.4 Palpates and percusses the bladder. C.12.5 Hears bowel sounds.	
13. Musculoskeletal			*C.13.1 Observes range of motion (ROM).	
14. Rectal exam			*C.14.1 Performs effective rectal exam.	

*Behaviors which can be evaluated only in the hospital or nursing home.

TABLE 10

PHYSICAL ASSESSMENT MODULE--BEHAVIOR CHECKLIST

Student_____

Section Instructor_____

Good 19-21 points
Satisfactory 15-18 points
Unsatisfactory 0-14 points

Behaviors	Trial 1	Trial 2	Trial 3
Body Positions Gives two names of body positions used when doing a physical examination, places partner in appropriate position. 1. First Position			
2. Second Position			
Physical Examination Techniques Area Examined_____ Anatomy 3. Correctly names underlying anatomical area examined.			
4. Uses correct sequence.			
Inspection 5. Has appropriate lighting.			
6. Has appropriate exposure.			
Palpation 7. Places hands on partner's body appropriately (fingers together and hand conforms to body part).			
Percussion 8. Places hands in appropriate position.			
9. Uses wrist action			
10. Elicits sounds.			
Auscultation 11. Places stethoscope in ears appropriately.			
12. Places stethoscope on partner's body appropriately.			
13. Can hear sound as validated by faculty.			
Comfort and Communication during Procedure 14. Explains procedures to partner.			
15. Describes non-verbal responses.			
16. Places partner in comfortable position.			
17. Places partner in position that allows for exam.			
Neurological Exam Peripheral Vision 18. Moves fingers appropriately.			
Ocular Movements 19. Moves fingers appropriately.			
Pupillary reflexes 20. Uses light source appropriately (starts at side).			
21. Checks pupil size, shape, equality and response to light (PERRL).			
- 59 Total Points			

nursing process modular approach is reported in the accomplishments for Aim Five "Evaluate the Type of Instruction Used."

In June, 1975, faculty who were teaching the Junior year courses 321-326, Nursing Care of Ill Adults and Children, and the Senior year courses 401-402, Maximizing Health in the Community, attended workshops arranged by the project grant office on individualized learning by use of modules. The focus was on the Instructional Systems for Individualized Learning (ISIL) approach adapted for Nursing Process courses.[1] Components of this instructional design were presented followed by a demonstration on how to mediate a learning module. Evaluations by almost all workshop participants were extremely positive. Pediatrics faculty subsequently delineated segments of the content for N322 into modules. Family and Community Nursing faculty decided that segments of course content for Maximizing Health in the Community would be presented in modular format.

Methods of evaluation, especially for clinical courses, were the focus of many sessions held by faculty groups planning or teaching new courses Spring, 1975. An annotated bibliography on assessing learning outcomes was prepared by the project grant office with references made available to faculty and students. A panel presentation on pass/fail/honors grading option for clinical nursing courses was sponsored by the Committee on Educational Effectiveness April, 1975. Input was obtained from faculty and students through questionnaires. The following data were reviewed:

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[1] Copies of the 1975 Guidebook for the Design of Instructional Systems for Individualized Learning by Allison McPherson were prepared by the University Office of Research in Medical Education for workshop participants. The Kellogg Allied Health Education Project co-sponsored the workshops. Audiocassettes of these sessions, along with copies of the guidebook, are now available in the School's Graduate Reading Room for faculty and students.

1. Twenty-five of thirty-four faculty teaching clinical courses supported a pass/fail/honors option for grading; four were undecided; five did not choose this option. Those replying "no" were concerned about graduate student admission, jobs following graduation, and decreased student motivation. Those replying "yes" felt advantages were reduced competition among students, decreased anxiety which improved atmosphere for creativity, increased instructor role as a facilitator, and increased focus by instructor on students' strengths and weaknesses rather than grades.

2. The survey of more than 200 students showed that more than 95 percent were in favor of pass/fail/honors grading option. Students felt that grading for clinical courses was subjective and inconsistent, varied from instructor to instructor, tended to be norm rather than criterion-referenced, and fostered competition among students. The majority felt that making clinical a pass/fail/honors situation would help alleviate some of the high level of anxiety and frustration among students.

3. The School's Graduate Student Advisor presented the results of a 1971 NLN survey of nursing schools which showed that only three out of 67 graduate schools questioned would not consider an applicant who had a large percentage of pass/fail grading transcript.

As a result of all this input, faculty voted May, 1975 to make clinical courses in the junior and senior years credit/no credit (the University system feasible to operationalize non-grading for these courses). The work by some faculty to delineate clinical performance criteria in order to implement the credit/no credit system of grading is presented in accomplishments for Aim Five "Clinical Performance Evaluation." Faculty and students were again polled May, 1976 regarding the advantages and disadvantages of this system of grading clinical courses and whether or not they wished to continue its implementation. There was an overwhelming response in favor of continuing the credit/no credit system of grading for clinical courses.[1]

Selection of Learning Resources

In August, 1973, an Office of Audiovisual Media was established in the School of Nursing directed by an educational media specialist. This office sponsored a number of workshops to stimulate and encourage the use of media in instructional

[1]Reported by M. Dodd, Instructor in the Department of Physiological Nursing. (Questionnaire data from 33 of the 41 faculty teaching clinical courses and approximately 400 students are still being analyzed.)

modes. Winter, 1974 workshops were conducted on computer assisted instruction with demonstrations of how to use the new terminal located in the Health Sciences Library. During Summer quarter, 1974 sessions were conducted on videotape planning and production. In Autumn, 1974, other learning resource offices within the health sciences and the university presented procedures for obtaining their assistance.

The media specialist and the project grant Director or Assistant Director met with each group of instructors assigned to teach the revised courses. Assistance was offered in selecting and producing educational media. A large number of instructional packages were previewed by faculty to insure that the best resources were incorporated. Services and costs related to preview of these materials were provided by the project grant office. A major focus was placed on obtaining learning resources that would improve the instructional program and incorporate new skills and knowledges, such as physical assessment skills. Project grant funds also supported the purchase of commercially produced software (see Appendix I). Blank video tapes, audio cassettes, transparency materials, and lantern slide materials continued to be made avilable to faculty for in-house production.

At a March, 1975 Sophomore year faculty workshop, instructors teaching the new nursing courses recommended that a minimum of four copies be made available of all educational media required for individual student check-out. Student evaluation of the revised courses corroborated this need. Twenty-six of fifty-two students responding to an evaluation of Nursing Process I and II indicated they had difficulty obtaining audiovisuals or reading materials when working on the modules. Assistance was requested from the project grant office to duplicate the needed copies of media. The grant office provided services for an initial inventory, contacted the necessary distributing companies, provided funds for royalty fees where required, and supplied the materials necessary for duplication. The Office of Audiovisual Media assembled the materials, provided technician services, and

coordinated the duplication of materials.

Because some other faculty were adopting the learning modular approach for the revised courses, it was decided, June, 1975, to request duplication rights for media prior to purchase (see Appendix I for a sample of inquiry letter sent to distributing companies). For the items for which duplication permission was requested, no fee was charged for 62 percent of the materials, only a ten percent royalty fee for 14 percent of the items, and a fifteen percent fee with rights to be negotiated on a yearly basis for 2 percent of the materials (see Appendix I). For twenty-one percent of the media, the companies could not grant duplication permission but did offer reduced rates on multiple-copy purchases. Only one company could offer neither duplication permission nor a reduced rate on multiple-copy purchases. The project grant evolved a standard authorization form which was found acceptable for those companies granting duplication permission (see Appendix I).

Requests for teaching demonstration equipment not easily available in the clinical setting or required on campus for instruction of the revised courses were also filled by the project grant. Through grant staff efforts, numerous items were donated by supply companies in the areas of respiratory, gastrointestinal, and venipuncture equipment.[1] A list of all learning resources purchased by the project grant at faculty request for the revised courses is found in Appendix I.

Faculty In-service for Teaching Physical Assessment

The project grant office sponsored a three-day workshop session, requested by Pediatric faculty, on physical assessment September, 1975. The emphasis was on special problems of different age groups and assessment of the respiratory,

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[1]The teaching demonstration equipment is now available in the School's Equipment Room, T631, and educational media is available through the Nursing Media Office.

cardiac, orthopedic, and neurological systems as well as examination of the ear. Examinations of the newborn and the school-aged child were performed. The project grant office provided reference material and arranged follow-up clinical preceptorships. Faculty spent time with nurse practitioners in sick and well child clinics during Autumn quarter, 1975.

Weekly in-service sessions were held for physiological nursing faculty during Winter, 1976. Topics of general assessment were covered: inspection, palpation, percussion and auscultation, assessment of neurological function, interpretation of respiratory abnormalities, and evaluation of heart sounds. Various clinical specialists from the School of Nursing faculty and other clinical facilities presented the material. The sessions were videotaped, these tapes were made available through the Nursing Media Office and have been used subsequently by both faculty and students.

Two other sessions, both covering evaluation of heart sounds, were presented to the pediatric and community health nursing faculty Winter, 1976. Faculty evaluations of all workshops were extremely favorable and indicated that the content was helpful in teaching the new courses.

Curriculum Coordination and Evaluation Efforts

In February, 1975, the Program Council passed a motion supporting the scheduling of curriculum coordination and evaluation meetings for all faculty teaching in the revised curriculum. The project grant office assisted the coordinator of Nursing Process I and II to organize two workshops for the instructors who were teaching Sophomore nursing courses Winter and Spring, 1975. Junior and Senior year faculty who were planning subsequent nursing courses also attended the workshops. In March, 1975 instructors reviewed the implementation of the three new courses, Nursing Process I, Communication in Helping Relationships, and Human Growth and Development I. Copies of the course materials were distributed by the grant office to appropriate faculty. The project grant office was also

asked to establish a Resource Library of all new course materials as they were evolved by faculty, and of required and recommended texts for prerequisite and nursing courses. Recommendations were made concerning rescheduling of laboratory hours for the communication course, sequencing of Human Growth and Development I content, and that a minimum number of two print and four non-print materials be available for the eighty students enrolled in the Nursing Process modular learning system each quarter.

In June, 1975, the instructors reviewed the new courses: Nursing Process II, Human Growth and Development II, Psychosocial Care in Adaptive and Maladaptive Behavior I, and Statistics. The emphasis of this workshop was the strengths and weaknesses of these courses, the concerns that were raised by students, and the learning problems encountered. It was recommended that the courses as presently scheduled for three to four days/week be spread over a five-day period to alleviate students' stimulus overload. The progress made by the Revision Office related to the duplication of educational media for Nursing Process was discussed.

The Baccalaureate Curriculum Revision Office assisted Program Council to organize two workshops, September, 1975 and December, 1975, for the instructors who were teaching junior level courses. The purpose of the September workshop was to share plans for courses that would be taught in the academic year 1975-76, and to discuss plans for coordinating teaching efforts. Emphasis was placed on identifying areas of overlap as well as gaps. A second workshop for faculty teaching Junior year courses was held at the end of the Autumn quarter to share experiences in implementing the new Junior year courses and to plan for the revised courses Winter quarter. A major concern was again the outcomes of learning in relation to the objectives, reinforcement of previous learning, problems encountered in sequencing content, student response to learning activities, and adequacy of clinical experience.

Faculty and students expressed considerable frustration with the time sequencing of the Operation Room experience (N322). A recommendation was made that the OR be offered with the adult medical-surgical nursing experience. Faculty also expressed the desire that the pediatric nursing content be moved to the end of the Junior year. There was some dissatisfaction stated about combining the care of ill adults and children in the same course (N321, N232, and N325). Because of these feelings, but also as a result of budgetary restrictions and suggestions of administration, it was recommended January, 1976 that Care of Ill Adults and Children be separated into distinct courses as follows: 1) N321, N322, N323, and N324 become the responsibility of the Physiological Department, including the OR experience, and 2) N325 and N326 become the responsibility of the Maternal and Child Nursing Department. In addition it was recommended that there be a redistribution of credits among the N297, N300 and N321, N323 courses (the former two courses each reduced one credit; the latter each gaining one credit). Faculty approved these changes March, 1976.

Also in December, 1975, a workshop brought together the faculty teaching Sophomore year courses. The purpose of this coordination and evaluation meeting was for faculty who taught Sophomore year nursing courses to report: 1) any changes that had been made in the Sophomore year courses since these courses had last been taught (six-month gap), and 2) any changes that were anticipated for the following quarter. Some Junior year faculty also provided feedback concerning the performance of the previous Sophomore class.

A questionnaire was sent to faculty who had attended the Junior year workshop sponsored by Program Council and the Sophomore year workshop organized by the Nursing Process coordinator to evaluate the workshops. The majority of those polled indicated that they would like to have the workshops continued every quarter during 1976. In response to a question relating to changes that the faculty would like to see in the workshop format, the suggestions were that they would like to have administrative representatives attend, have more student input, and more

structure to the meetings. Most of the responses indicated that these faculty members felt they had greater knowledge of what was going on in the curriculum in terms of integrated material. Almost all of these faculty members wanted the workshops to be continued on an on-going basis.

Summary of Contributions of Project Grant

When Program Council assumed the responsibility of implementing the revised curriculum November, 1973, from the Undergraduate Curriculum Study Committee, a summary of the committee's work was presented by the project grant Director. This included discussing plans for the evaluation of the curricular change developed by the project grant. The grant Director or Assistant Director continued to attend Program Council meetings throughout 1976 to provide the input and assistance needed.

In addition to project grant activities already described, staff services were provided in planning meetings and preparing minutes of curriculum coordination workshops. Copies of the "Yellow Book" of course outlines were made available to new faculty.[1] Revisions of course outlines were distributed to all faculty September, 1975. Secretarial support was given the Committee on Educational Effectiveness, chaired by the project grant Director 1973-1975. Reference lists were distributed in the areas of "Learning Principles," "Evaluation," "Challenge Exams," "Mediated Instruction," and "Physical Assessment." Books on curriculum, instruction, and evaluation were made available for check-out.[2]

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[1]The mimeo stencils were transferred to the Program Council Chairman April, 1976.

[2]The project grant books are now available for check-out through the Graduate Reading Room.

Program advisement of students in the present and revised undergraduate curriculum was continued by the project grant Advisor/Research Assistant. For the years 1973-1975, the Advisor was an active member of the School's Minority Affairs Committee. This Committee dealt with concerns raised by ethnic minority students about the curriculum and provided the support system needed to succeed in the nursing program. During the fifth year of the grant, this half-time position was allocated solely for student advising.

The Director of the School's Office of Audiovisual Media resigned August, 1974, leaving this position vacant until April, 1975. The project grant office assumed the responsibilities related to faculty preview and purchase of educational media for the revised courses during the interim period; and subsequently assisted the new director with these tasks. An "Instructional Media Evaluation Form" was evolved (see Appendix I). Staff services were provided in the selection and evaluation of new media as they related to content in the revised courses. Grant funds totaling $26,000 supported the learning resources requested by faculty for implementation (see Appendix I).

Throughout the years of implementation, the Director or Assistant Director attended course development meetings. Consultation was provided on the continuity, sequencing and integration of content that cut across the five departments of the School of Nursing. This function was seen as crucial to actual implementation in light of the following reasons: 1) the large faculty turnover that necessitated formal and informal orientation of new faculty responsible for teaching the revised courses; 2) the transitional period of an acting Dean for 1974-1975 and the appointment of a new Dean as of July, 1975; 3) little or no release time given to faculty to prepare materials for the revised courses; and 4) the practical necessity of assisting in the review and dissemination of instructional materials. Efforts undertaken to transfer the functions of the project grant to the School are described under "Plans for the Continuation of the Project."

ACCOMPLISHMENTS RELATED TO AIM FIVE FROM THIRD THROUGH FIFTH PROJECT YEAR, 1976: EVALUATE THE CURRICULAR PLAN

The specific objectives for this aim were:

5.1 Delineate the contribution to meeting health service needs.
5.2 Identify the impact of this approach on nursing in meeting health needs.
5.3 Analyze the predictive value of this curricular approach.
5.4 Determine if the new curriculum has generated curricular innovations.
5.5 Evaluate this curricular approach.

These objectives were restructured in the third project year as the major evaluation system based on a model was developed and initiated by grant personnel. Seven specific evaluation goals then guided staff efforts to evaluate the curricular plan.[1] This section reports the implementation of the proposed evaluation methods and data sources from the third through the fifth year of funding and the results achieved at the termination of the project grant. Factors which modified the accomplishments possible are delineated. On-going evaluation efforts are described under "Plans for Continuation of the Project."

Evaluation of the Curricular Materials

Evaluation Objective One -- Evaluate whether or not the curricular materials reflect the desired direction of change.

All of the materials for the revised curriculum were sent to the Board of Review for Baccalaureate and Higher Degree Programs for the National League of Nursing. Also included was an analysis by the project Director of the way the curriculum reflected the philosophy and purposes of the school and implemented the objectives of the program (see Appendix J). Applying the Criteria of Accreditation of Baccalaureate and Higher Degree Programs, the Board made no suggestions for changes in the revised curriculum. This review was felt to meet Evaluation Objective One, since the Board of Review itself was a panel of nursing experts on curriculum construction.

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[1] See proposed methods and data sources described under Accomplishments for Aim Three: "Delineation of an Evaluation System."

Evaluation of Achievement

Evaluation Objective Two -- Evaluate whether or not the performance of students of the revised curriculum was significantly superior to that of students of the old curriculum on outside criterion tests of abilities (outside of each program), and Evaluation Objective Three -- Determine whether or not the students of the old and revised curricula were meeting the objectives of each curriculum.

Tests reviewed and/or administered. During the last three project years, efforts were continued to review new achievement tests which could be used for testing students' achievement in the existing and revised curricula. The tests were circulated to faculty members engaged directly in teaching the course materials related to these examinations. Test summaries were prepared by the project grant staff and distributed to all faculty. The tests that were reviewed and a synopsis of the faculty's evaluation during 1973-1975 are listed in Appendix K. Some examinations were evaluated more than once against specific criteria for their acceptance in measuring students' achievement. During 1975-76 the National League for Nursing Achievement Tests were reviewed against the criteria for granting validation credit for the entering graduate registered nurse from a diploma program (see Appendix K). The State Board Examination Test results for the classes graduating 1972, 1973, and 1974 and the National League for Nursing Achievement Tests scores for the classes of 1972, 1973, 1974, and 1975 are presented in Tables 11 and 12.

Clinical performance evaluation. Efforts to design new tools to measure clinical performance of graduating seniors in the existing program were initiated October, 1973 with the addition of the Evaluator to the project grant. The Director, Assistant Director, and the Evaluator discussed selected references from three computer searches of the nursing, medical, and educational literature on Measuring

TABLE 11
STATE BOARD EXAMINATION MEAN RAW SCORES FOR STUDENTS GRADUATING FROM UNIVERSITY OF WASHINGTON SCHOOL OF NURSING, 1972-1974

VARIABLES	1972 N=92		1973 N=105		1974 N=108	
	MEAN	STD DEV	MEAN	STD DEV	MEAN	STD DEV
MEDICAL NURSING	581.86	71.24	573.52	73.37	570.51	66.83
SURGICAL NURSING	583.84	65.59	589.25	70.03	585.50	73.39
OBSTETRIC NURSING	554.51	65.02	569.89	68.21	544.88	66.60
PEDIATRIC NURSING	583.36	68.45	576.05	67.18	565.56	90.43
PSYCHIATRIC NURSING	566.20	82.73	573.16	72.89	564.04	69.06

TABLE 12
NLN ACHIEVEMENT TEST MEAN RAW SCORES FOR GENERIC STUDENTS ENROLLED IN UNIVERSITY OF WASHINGTON SCHOOL OF NURSING, CLASSES OF 1972-1975

VARIABLES	1972 N=100		1973 N=121		1974 N=160		1975 N=184	
	MEAN	STD DEV	MEAN	STD DEV	MEAN	STD DEV	MEAN	STD DEV
I. Comprehensive Test in Maternal-Child Nursing--Bacc. Programs only (Form 964), 1964, 150 items.	86.83	13.05	88.46	14.46	90.60	13.03	89.04	15.56
A. Growth and development, including the normal changes of pregnancy - 52 items.	31.89	6.05	31.80	5.65	32.83	5.43	32.28	6.07
B. Conditions and care of the sick child - 61 items	30.46	6.72	31.74	8.35	32.60	8.28	31.43	7.32
C. All other items* - 37 items.	24.91	6.19	24.88	4.08	25.26	3.81	26.01	4.10
II. Basic Course-End Test in Medical-Surgical Nursing (Form 862), 1962, 126 items.	86.80	8.20	89.03	8.06	91.43	8.86	94.60	8.45
A. Medical Nursing - 47 items.	32.05	4.09	32.84	3.85	33.52	4.12	35.41	4.87
B. Surgical Nursing - 39 items.	27.11	3.12	27.33	2.96	28.67	3.30	29.74	4.24
C. Medical & Surgical Nursing - 40 items.	27.85	3.53	28.83	3.59	29.20	3.70	29.80	3.68

*e.g., all obstetric aspects other than the physiological changes of pregnancy; scientific and medical aspects not peculiar to pediatrics; interpersonal aspects not unique to maternal-child nursing.

Nursing Performance and Criterion-Referenced Tests (approximately 300 citations for each).[1] On the basis of this review, decisions were made about performance evaluation and instrument development. The methodology adopted by grant personnel for the development of criterion-referenced instruments was approved by the Advisory Committee February, 1974 (see Table 13).

All senior faculty teaching in the clinical area were polled regarding the most frequent client contacts of their students. From this poll, a client population was selected and two trial instruments developed.[2] The performance evaluation items were pilot tested with a small group of senior students Spring, 1974 and Spring, 1975. A third criterion-referenced instrument was developed by a master's student who worked with the former Director as her thesis chairman.[3] The Evaluator who joined the project grant staff February through May, 1975 did not evolve any additional performance items or pilot test already-developed evaluation items.

Work in this area during the fifth year focussed on assisting some faculty to delineate clinical performance criteria in order to implement the Credit/No Credit system of grading adopted for all nursing practice courses Autumn, 1975. A sample of the criteria against which to evaluate students' performance, for the pediatric component of N322, is included in Appendix L.

Evaluation of Time and Cost Effectiveness

Evaluation Objective Four - Evaluate the time and cost effectiveness of each curriculum.

Some steps were taken to address the measurement of this Evaluation Objective.

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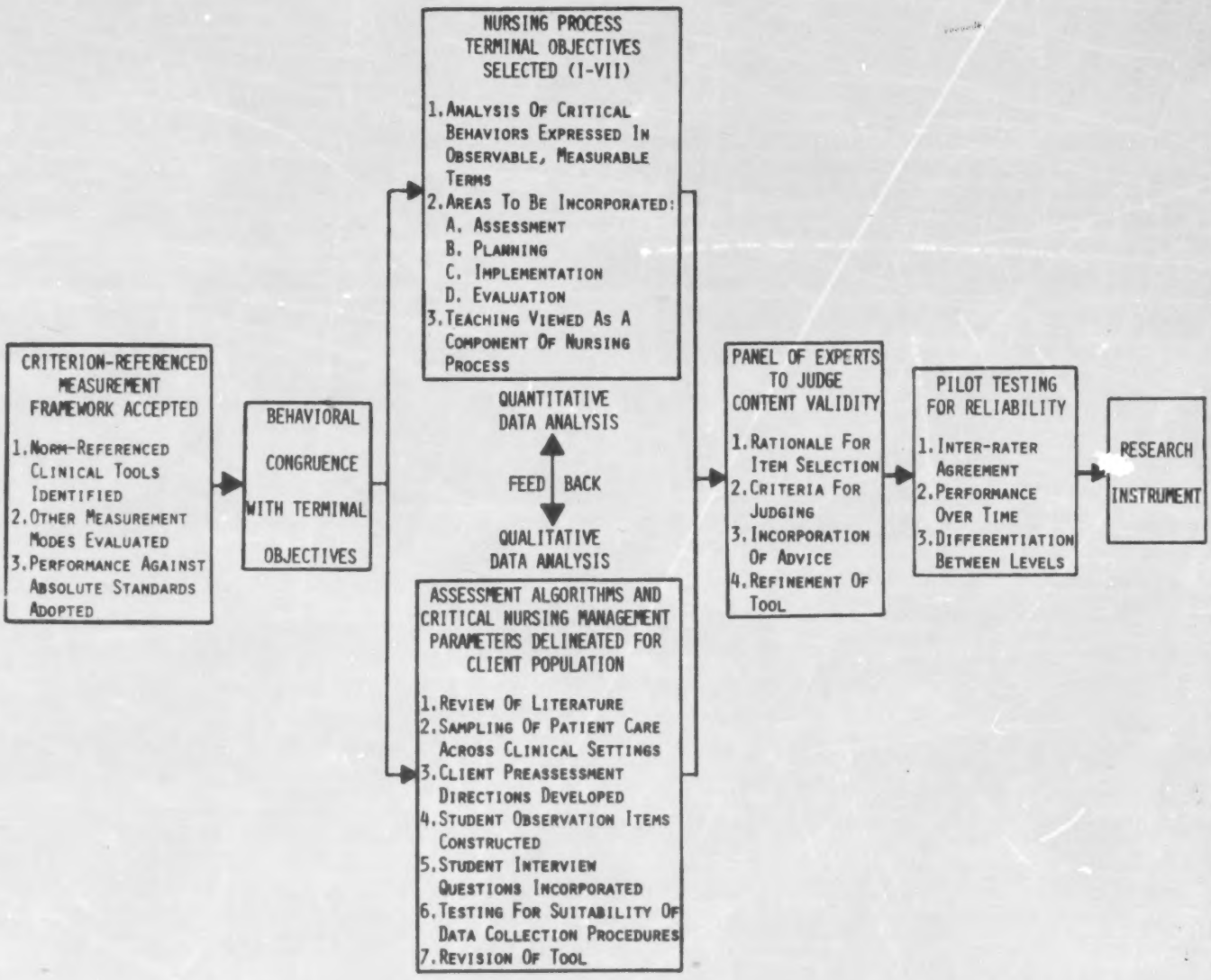
[1]For an analysis of the clinical performance evaluation literature see U. Krumme, "The Case for Criterion-Referenced Measurement," Nursing Outlook, 23: 764-770, December, 1975.

[2]U. Krumme, "Assessment Algorithms and Nursing Management of Range of Motion and Positioning Needs of Stroke Patients," and C. Smith and L. Olson, "Communication Evaluation: Tools for Student Assessment" (unpublished instruments, May, 1974).

[3]P. O'Hearn, "The Development of a Criterion-Referenced Tool for Evaluation of Senior Nursing Student Care of Patients with Fluid Balance Disturbances" (unpublished master's thesis, School of Nursing, University of Washington, 1975).

TABLE 13

THE METHODOLOGY ADOPTED IN THE DEVELOPMENT OF A RESEARCH INSTRUMENT FOR EVALUATING SENIOR CLINICAL NURSING PERFORMANCE


CRITERION-REFERENCED MEASUREMENT FRAMEWORK ACCEPTED
1. Norm-Referenced Clinical Tools Identified
2. Other Measurement Modes Evaluated
3. Performance Against Absolute Standards Adopted
BEHAVIORAL CONGRUENCE WITH TERMINAL OBJECTIVES
NURSING PROCESS TERMINAL OBJECTIVES SELECTED (I-VII)
1. Analysis Of Critical Behaviors Expressed In Observable, Measurable Terms
2. Areas To Be Incorporated:
A. Assessment
B. Planning
C. Implementation
D. Evaluation
3. Teaching Viewed As A Component Of Nursing Process
QUANTITATIVE DATA ANALYSIS
FEED BACK
QUALITATIVE DATA ANALYSIS
ASSESSMENT ALGORITHMS AND CRITICAL NURSING MANAGEMENT PARAMETERS DELINEATED FOR CLIENT POPULATION
1. Review Of Literature
2. Sampling Of Patient Care Across Clinical Settings
3. Client Preassessment Directions Developed
4. Student Observation Items Constructed
5. Student Interview Questions Incorporated
6. Testing For Suitability Of Data Collection Procedures
7. Revision Of Tool
PANEL OF EXPERTS TO JUDGE CONTENT VALIDITY
1. Rationale For Item Selection
2. Criteria For Judging
3. Incorporation Of Advice
4. Refinement Of Tool
PILOT TESTING FOR RELIABILITY
1. Inter-rater Agreement
2. Performance Over Time
3. Differentiation Between Levels
RESEARCH INSTRUMENT

Developed by U. Krumme 2/11/74
And Revised 5/14/74

The University of Washington in 1973 initiated a quarterly Faculty Activity Analysis -- a system of gathering data concerning the ways which faculty spend their time. These reports provide the data for some cost accounting by the University and serve as a guide for School of Nursing administration to allocate faculty resources. The cost effectiveness of implementing the revised curriculum was addressed by the Dean at an All-School Faculty meeting, January, 1976:

> It [revised curriculum] was developed at a time when resources appeared to be fairly unlimited; when faculty could decide what was the best way to expose students to theory and planned clinical learning experiences, and based on that, ask and receive the needed resources to meet the course objectives. Whereas this is the dreamed of goal for every educator, reality is such that we can no longer even attempt to base our allocations on what we believe we need. Instead, we must implement our curricula as effectively and efficiently as possible . . . major principles that we must follow:
>
> 1. Our School is departmentalized. Every course must be the responsibility of a specific department. This does not mean that faculty should not plan carefully with others, from other departments or other schools on campus, for enrichment of content. It does mean that we must have a guarantee that each course has continuity of faculty and leadership, and that resource allocation is planned in advance.
>
> 2. Different teaching strategies must be implemented to allow for greater numbers of students to be taught without decreasing effectiveness.
>
> 3. Some theory courses do not have to be taught every quarter. Rather these courses can be taught every other quarter to an entire class of students admitted at the same time.

An interactive computer terminal was installed in the Undergraduate Office Summer, 1975. It is initially being used for storing admissions data, but has the capability for further expansion to include more student record data. The data gathered is in a format compatible with that gathered by the project grant.

Results of Student Evaluation

Evaluation Objective Five -- Evaluate how the faculty and students' needs, characteristics, abilities, and the environmental press related to achievement and the program goals.

Student records. As was discussed under accomplishments for Aim Three, data gathering from student records was begun in Summer, 1972 by the Institute for Educational Research and continued from Autumn, 1972 by the project grant Research Assistant/Advisor. To determine the reliability of work done by the IER a random sample of 50 records was recoded. An acceptable error rate of five percent was set and an analysis was made of the type of errors. The following problems were identified: the raw scores of Washington Pre-college Entrance examinations were being gathered, not the predicted grades; when the data were being transferred to magnetic tape the data recorded on the center of the mark-sense sheets were not picked up and resulted in much information being lost; in a number of other spots it appeared that directions to the coders needed to be clarified. On the whole, the error rate was low. During the project years four and five, efforts to gather information from student records continued. Data on over 500 students were collected.

The project grant staff had utilized the services of the Educational Assessment Center (formerly IER) to analyze the data. Due to a varying workload at EAC, delays were encountered in getting the data analyzed. It was decided a Research Analyst on the project grant staff would facilitate the work. The Research Analyst was to assume responsibility for reviewing the form being used for data gathering, to correct any problems with the data already collected, and to assist in getting the data analyzed and the results written up.

The Research Analyst found several problems and errors in the data including the fact that several important variables, such as withdrawal from nursing and previous nursing education, were not being recorded. Also, students who had begun in nursing but who withdrew before data collection was instituted (before Spring, 1972) were not included in the population. To resolve these problems it was necessary to return to all student records to gather the missing data

and to collect all the information for students who had withdrawn before Spring, 1972. In order to facilitate the student record data collection process by eliminating the coding onto mark-sense forms and to gather the data which had been originally omitted, the Research Analyst revised the data collection form. This form was superior to the old in that it allowed for data to be gathered in the order they were found in the records; it incorporated the missing variables and data were gathered and coded in one step. Key punching could also be done directly from the form (see Appendix M).

To make the data easier with which to work and to facilitate future identification all data collected previously were renumbered and reformatted to be compatible with the new data collection form. These data were recorded both on data cards and magnetic tape. The data collection efforts, the problems encountered and the final status of all data by Summer, 1975 are summarized in Appendix N.

When the former project Director's termination was announced (to occur August, 1975), it was determined that due to time constraints there was no possible way to complete the gathering of the Student Record Evaluation data as initially planned. Therefore, it was decided to complete the data for a 20 percent random sample of students for those years in which there was a reasonable amount of psychological test data available. The collection of the Student Record Data for a sample from the Basic 73, 74, and 75 students was completed in August, 1975. The sample was generated by using a random number generating computer program.

Due to the fact that this sample contained only graduates of the old curriculum, the project grant Advisory Committee recommended in January, 1976 that data from a 20 percent sample from the class of 1977 also be collected and analyzed. This was accomplished with the assistance of a pre-doctoral research associate. Summary statistics are given in Appendix O for the Student Record Data of the classes of 1973, 1974, 1975, and 1977. An entering profile of the class of 1978, distributed by the project grant Advisor is also included. A

review of the literature was prepared pertaining to descriptions of nursing students and is found in Appendix P.

Psychological and student characteristics test data. Psychological testing of the students began with the sophomores Fall, 1972. As was discussed earlier, they were asked to volunteer to take the Myers-Briggs Type Indicator (MBTI), the Personal Orientation Inventory (POI), the Activities Index (AI), the College Characteristics Index (CCI), and the Student Characteristics Questionnaire (SC). The testing procedure and consent form for the psychological testing were approved by the Human Subjects Review Committee each year. Table 14 presents the number of students tested during the project years 1972 through 1975.

TABLE 14

STUDENT PARTICIPATION IN TESTING 1972-1975

	MBTI	POI	AI	CCI	SC	Total Number Possible
Sophomores, Fall, 1972 (class of 1975)	220	123	226	110	211	259
Seniors, Spring, 1973 (class of 1973)	115	82	101	58	112	151
Sophomores, Fall, 1973 (class of 1976)	136	134	133	129	138	245
Seniors, Spring 1974 (class of 1974)	54	27	43	24	57	181
Sophomores (class of 1977)	16	16			14	Approx. 80
Seniors, retested Spr. '75 (class of 1975)	11	10	9	8	12	Approx. 240

As can be seen from Table 14 there was a varying response from students in their willingness to participate, consequently there was a reduction in the sample size. Because the consent forms and guidelines for the protection of

human subjects allowed participation on a voluntary basis only, extensive efforts were made to inform students of the importance of the testing. Grant staff had obtained permission to test students in Fall, 1972 during two hours of scheduled class time. Response to this opportunity was high, approximately 84 percent. A second block of two hours was scheduled for completion of the battery during the students' free time. The response to the second testing was approximately one-half of the student sample. Similar results were obtained with senior student testing Spring, 1973. Project staff efforts to negotiate with faculty the re-scheduling of additional class time for testing the students who did not complete all the tests were unsuccessful. In Spring, 1974 additional efforts were made to increase senior student participation by securing permission from testing companies for the test packets to be taken home. Student feedback had indicated in the past that students felt participation would be increased if they could take the tests at their leisure. As can be seen from the rate of participation, this did not increase the percentage of student participation. In Winter, 1975 an effort was made to reduce the size of the test battery administered by a correlational analysis of the psychological test data from previous classes. The Activities and College Characteristics Indexes were subsequently dropped. This reduced the time from four hours to two hours. In addition, several testing times were scheduled. Coffee and cookies were served and students were given the opportunity to review their test results. In spite of these efforts the number of students who were willing to be tested was very small. Because of this low level of participation, the decision was made to discontinue psychological testing as of Spring, 1975 and to write-up the results gathered in the Summer of 1975.

Some problems were encountered with psychological test data analysis. Scoring companies made errors, the time involved to have the scoring done was often from three to six months and after the test scores were returned, transformations

needed to be done to permit the analyses desired. Some duplicate scoring by one company was necessary in order to correctly identify the data. The psychological test and student characteristics questionnaire results are presented in Appendix Q.

As of September, 1975, hypotheses had been generated for the POI data (see Appendix R). These hypotheses looked at the relationship which existed between sophomores and seniors in the University of Washington population as well as relationships between University of Washington data and the data from other published studies. The analyses of these hypotheses were completed with the exception of those relating to one published study where the author had to forward the data. The POI results are presented graphically in Appendix R.

In relation to the remaining psychological test results, tentative hypotheses, which will need further refinement, were generated by the former project Director for the Myers-Briggs Type Indicator and Stern's Environmental Indices (AI and CCI) (see Appendix R). No data analyses were done to test these hypotheses.

Results of Faculty Evaluation

Evaluation Objective Five -- Evaluate how the faculty and students' needs, characteristics, abilities, and the environmental press related to achievement and the program goals, and Evaluation Objective Seven -- Evaluate the curricular process used to bring about the curriculum revision.

Summary of Faculty Characteristics Questionnaire and psychological tests. Forty-six out of one hundred thirty-one faculty completed the forms Spring, 1973. Information obtained on the 15-item Faculty Characteristics Questionnaire included age, program of graduation, years of teaching, and teaching experience at the University of Washington. Each questionnaire was coded so that characteristics and perceptions of faculty members could be matched. The data from this questionnaire is presented in Table 15. The Stern's Environmental Indices, AI and CCI, data were scored but no further analyses were completed.

TABLE 15

RESULTS OF FACULTY CHARACTERISTICS QUESTIONNAIRE, 1973

VARIABLES	Respondents* N	%
Age:		
Under 25 years	1	2
25-34 years	20	44
35-44 years	8	18
45-54 years	15	35
55-64 years	1	2
Program of Graduation:		
3 year RN program, followed by a baccalaureate degree	21	46
Basic baccalaureate program	22	48
University of Washington BA:		
No	29	63
Yes	17	37
University of Washington MA:		
No	22	48
Yes	24	52
Years of teaching experience at the University of Washington:		
0 to 11 months	11	24
1 to 4 years and 11 months	14	31
5 to 9 years and 11 months	12	27
10 to 14 years and 11 months	3	7
15 years and over	5	11
Years of teaching experience in any school:		
0 to 11 months	10	22
1 to 4 years and 11 months	12	27
5 to 9 years and 11 months	11	24
10 to 14 years and 11 months	4	9
15 years and over	8	18
Currently teaching in:		
Undergraduate Curriculum	26	57
Graduate Curriculum	3	7
Both	12	26
Neither	5	11
Department affiliation:		
Comparative Nursing Care Systems	8	18
Family and Community	8	18
Maternal and Child	5	11
Physiological	18	40
Psychosocial	6	13

*Forty-six out of one hundred thirty-one faculty

Summary of Faculty Perception of Curriculum Revision Questionnaire. This survey was conducted in Spring, 1973. Forty-five faculty out of one hundred thirty-one completed the form. There were 29 items answered on a scale of one through five "Strongly Agree" to "Strongly Disagree" and 24 open-ended questions on faculty's perception of the curricular revision process. The purpose of the survey was to better understand the curriculum revision process undertaken at the School and to learn how it might be made more efficient. The frequency distribution in number and percent for each of the items included in the questionnaire is presented in Appendix S.

Course Evaluation

Evaluation Objective Six -- Evaluate the type of instruction used in each curriculum.

Students' evaluation of the nursing process modular approach. The project grant provided an open-ended questionnaire in June, 1975 asking the first group of sophomore students for their evaluation of the modular approach at the end of their second quarter sequence of Nursing Process courses. Fifty-two student responses (from a total of 80) were summarized by the project office.

There were substantially more positive comments than negative ones (ratio 4:1). For the most part the negative comments were in relation to difficulties obtaining the audiovisuals, scheduling testing and lab times, and the availability of instructors for assistance. Forty to fifty percent of the students reported these problems, but stated that the situations improved greatly the second quarter with the increased number of audiovisual tapes available for viewing and with the change in testing procedures so students were testing out with their own section instructors. A few (five) students requested that the labs be open in the evening and/or on Saturday for study. Other problems indicated were different definitions of successful performance by various instructors, and too much redundant

material in some modules.

Ninety percent of the students reported that the biggest advantage of the modular system was that it allowed them an opportunity to work independently at their own pace. They liked being responsible for their own learning, and felt it helped them develop well organized, disciplined study habits. It should be noted here that about ten percent of the students found they had difficulty developing sufficient motivation for this independent learning and it was a difficult system for procrastinators, suggesting that the modular system does not meet all students' needs.

Almost everyone (98 percent) reported that learning was facilitated because his/her anxiety was greatly reduced due to the fact he/she knew exactly what was expected to be learned for each module. They also felt less anxious in the clinic setting because they had had opportunities to practice skills prior to the clinical experience.

Specific items in the module design which students indicated were extremely helpful included: clear objectives, behavior check lists, the learning tracts (which allowed a student to fit his/her learning needs), excellent audiovisual materials, and tests appropriate to the material presented. The arrangement of the modules with more to be completed first quarter and fewer second quarter was seen as a positive element. The evaluations, in general, carried a positive and enthusiastic tone and indicated the modules were a new learning approach which the students felt contributed to a fruitful educational experience.

Modular evaluation sheets served as a vehicle for helping faculty improve the modules. Student feedback provided invaluable input for making improvements. A tabulation of N302 Evaluation of Modules, done Autumn, 1975, is presented in Appendix T. As can be seen from the findings, a majority of students felt that the general organization of the modules was good, the content level appropriate, and the guidelines and learning outcomes clear. There were enough planned learning

activities, easy or adequate access to materials, and faculty assistance was usually or always available. Almost all students who responded completed all minimum learning activities designated.

A pilot project was conducted Winter, 1976 to explore the advantages and disadvantages of peer evaluation for practical modular examinations in Nursing Process I.[1] Forty students were evaluated by a fellow student and forty students were evaluated by an instructor on each of twelve modular behavior checklists. Prior to beginning peer evaluation, students who would be observers were given guidelines on evaluation methods by their instructor. To determine student/instructor reliability each module was evaluated by two student/instructor pairs. Students in both groups were asked to evaluate the two methods of testing at the end of the quarter.

Faculty felt the results of this project indicated the need for further investigation into the use of peer evaluation. Peer evaluation was found to enhance the flexible use of time by both students and instructors. The peer evaluation group utilized a wider variety of testing times than did the instructor evaluation group (i.e., students could test out when the instructor was occupied with other students or classes). Students in both groups saw the feasibility of time as an advantage of peer evaluation. Because the instructor was not involved in testing, more of her time was available to provide teaching assistance to students. Students in the peer evaluation groups felt they learned about the modular skills by evaluating others (i.e., it was a valuable teaching tool to observe and critique another's behavior). Both instructors and students were concerned about the quality of evaluation in the peer evaluation group. Some students felt their peer would be more critical in testing than the instructor, while others felt the peer would be easier. The reliability data showed that instructors and students evaluated behaviors similarly. The range of point

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[1] Report submitted by Marcia Gruis, Instructor, May 1976.

difference between instructor and student on any given module was from 0-2 points, in both directions. This was not felt to be a significant difference. When asked which method of testing they preferred, the students in each group preferred the method each had used (i.e., students evaluated by instructors liked that method, students evaluated by peers liked that method). Students in the peer evaluation group felt they missed out on helpful hints given by the instructors during testing times. Instructors of the students evaluated by the peer method did not report any differences subjectively noted in the quality of skill performance in the clinical setting between this group and previous groups who had been evaluated by instructors.

Students' evaluation of learning activities. During the fifth project year, the grant office assisted faculty in the development, distribution, and tabulation of student Evaluation Forms for instructional activities of courses. Autumn Quarter, 1975, students were asked to rate various learning activities in N300, N322, and N324 based on a five-point scale of very useful to not useful learning activities. For most of the forms, students were also asked: 1) whether they would include the activity in the future; 2) if not, why; 3) the most useful aspect of the activity; and 4) the least useful aspect of the activity. Questions were also included pertaining to the building of knowledge gained in previous nursing courses, the utilization of knowledge in nursing courses taken concurrently, and suggested changes in the course. The ratings of all the forms were tabulated by the project grant office as well as students' verbatim comments and routed to the instructors who taught the course. Faculty reported that students seemed to be very constructive in their comments on evaluation and in the numerous suggestions for course changes. Faculty teaching N321 and N405 distributed their own course evaluation forms for student input.

This type of systematic input by students also corroborated curriculum changes recommended by faculty. For example, of twenty-six students who responded to the operating room experience in N322, twenty-two rated this as very useful, three as useful in part, and one as a neutral experience. Although students were not asked specifically about the placement of the OR experience, fourteen students spontaneously commented that they felt it should not be included with pediatrics because each is a different experience with very little interdependence. To emphasize this point, twelve of these students reiterated the comment about separating the two activities when asked what changes they would like to see in this course. Some students also commented that the operating room experience would be more appropriately placed with the medical-surgical clinical course. Faculty teaching the junior courses subsequently recommended at a December, 1975 meeting that "the operating room experience be taught concurrently with adult medical-surgical clinical courses." This change will be implemented in the course offerings for Autumn, 1976.

The student course evaluation forms were revised and tabulation methods simplified for use in courses taught Winter Quarter, 1976. The number of student responses to the question "If not, why?", following the evaluation item of learning activities - "Would Include in Future - Yes/No" - was limited for those courses using this format. Student responses were increased and very relevant when asked "Most Useful Aspect of Activity" and "Suggestions for Change" for evaluating the learning activities. This format was consequently used by all faculty who evaluated N297, N322, and N324 Winter, 1976. For a sample of the form administered and a tabulation of items rated by students, prepared by the Revision Office, see Appendix U. The procedures adopted for course evaluation Spring, 1976 and thereafter are discussed under "Plans for the Continuation of the Project."

Summary of Contributions of Project Grant

A major focus during the last three project grant years was placed on implementing the evaluation plan delineated by the project Director in 1973. A part-

time Evaluator joined the grant staff during periods in 1973-1974 and 1975 to administer the clinical evaluation program (see Appendix B). Some pre-masters' student research assistant's time was provided with abstracting the performance evaluation literature. A part-time Research Analyst was added to assist with the psychological and student characteristics test analysis (see Appendix B). Two pre-doctoral research associates provided additional expertise in statistics, research design, and computer analysis of test results January through May, 1975.

As a result of these project grant efforts, strategies were evolved for implementing a clinical evaluation program 1973-1974. Consultation on clinical performance evaluation was subsequently offered faculty in their efforts to implement the Credit/No Credit grading system for nursing practice courses. A literature review pertaining to the psychological and student characteristics test data was submitted by the former project grant Director in January, 1976. Findings of the student and faculty testing programs were subsequently evolved by the present grant Director and Research Analyst. A major focus was placed on developing systematic course content evaluation during the final project grant year. The efforts undertaken to transfer segments of the evaluation system are described under "Plans for the Continuation of the Project."

PLANS FOR THE CONTINUATION OF THE PROJECT

In a meeting with the Dean April, 1976, the project grant Director was informed that some curriculum coordination grant functions, such as consultation to faculty, could no longer be offered. The support services provided the Program Council, such as assisting with arrangements for faculty coordination workshops, revising and distributing the "Yellow Book" of new course offerings, preparing end-of-quarter faculty evaluation reports and test review summaries, and distributing reference materials on issues voted upon by faculty, would need to be assumed by that body. The grant activities related to faculty requests for preview, purchase, and duplication permission were transferred to the Nursing Media Office. The Dean felt funds were very limited at this time and the School was unable to provide additional services in this area.

In relation to the course evaluation service provided by the project grant, the Dean stated she had met with the Director of the Office of Research in Medical Education (ORME). A written communication was subsequently received by the project grant office from ORME offering their assistance with course evaluations Spring Quarter. The grant Research Analyst met with ORME to discuss implementation of the offer. The Chairman of Program Council then met with the Dean to confirm School of Nursing secretarial support for ORME to conduct evaluation of nursing courses. A memorandum confirming the arrangements was subsequently sent to ORME from the grant Research Analyst and the Program Council Chairman. The grant's Research Analyst presented the procedures to be followed to Program Council members May, 1976 and a memorandum was distributed to all faculty stating that anyone who was interested in developing a course evaluation tool, or using the form developed for N297, N281-302, N322, and N324 should contact the Office of Research in Medical Education. Program Council plans to work through an ongoing course content evaluation procedure to present to faculty.

Provisions were made that the data collected by the project grant would be available to faculty and graduate students for use in their research. To clarify the legal implications, the former Director sought counsel from the University's Attorney General's office. In response, Assistant Attorney John Pettit replied in a memorandum dated June 19, 1975 that "the data may be so transferred, and other appropriate researchers may utilize the data, so long as the basic terms of the original consent agreement are honored" (see Appendix V). A description of the data collected, numbering system used, and the format of the data were prepared by the project grant Research Analyst. A memorandum regarding the availability of the data for research was circulated to the Department Chairmen and the Director of the Graduate Program. The psychological test booklets and score sheets are now held by the School of Nursing for use by other researchers.[1]

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[1]The project grant transferred 210 Myers-Briggs Type Indicator booklets and 362 answer sheets to Professor Doris Carnevali, December, 1975, for use in the Interdisciplinary Health Team in Primary Care Project. The School of Nursing also retains the following: Stern's Environmental Indices--212 College Characteristics Questionnaires, 254 copies of the Organizational Climate Index, 180 copies of the Activities Index, and 425 Stern's answer sheets; and 200 copies of the Personal Orientation Inventory with 455 answer sheets.

SUMMARY OF FIVE-YEAR PROJECT

In summary, the project grant provided assistance and resources to allow faculty and students to systematically engage in a major curriculum revision. The following major accomplishments can be cited:

1. Extensive review of the present and future educational health and nursing care needs by eighteen task forces and dialogue about these by faculty;
2. Development of a philosophy of nursing education;
3. Development of a set of terminal program objectives;
4. Development of a statement about the graduate of the revised program;
5. Development of a curricular model;
6. Development of the courses for the revised curriculum;
7. Approval of the revised curriculum by the University Curriculum Boards and State Board of Nursing;
8. Development of an overall evaluation plan;
9. Implementation of part of that evaluation plan by testing students and faculty;
10. Reporting the results and literature review of student and faculty testing;
11. Implementation of Sophomore and Junior year courses and planning for Senior year courses; and
12. Delineation of a curricular pattern for the registered nurse student.

Without the project grant the School would only have been able to slightly modify a curriculum which needed major changes. Innovations were activated commensurate with the expectations of the community and needs of the students. The School of Nursing budgetary restrictions within University-wide cutbacks in the 1971-1973 biennium, and an austere budget for the ensuing biennia would not have allowed for all these changes. To paraphrase John Gardner's remarks on change from his book No Easy Victories, the project grant "fostered and nourished the conditions under which constructive change occurred." Ultimately, it is the consumer who will be the beneficiary of the improved health care delivered by graduates of the revised curriculum.

APPENDICES

LIST OF APPENDICES

Appendix		Page
A	University of Washington Organizational Structure of the School of Nursing.	82
B	Faculty Who Served as Grant Personnel	83
C	Memo from Acting Dean Crowley, May 15, 1975	84
D	Working Philosophy of Nursing	86
E	Definition of Terms as Used in the Terminal Program Objectives for the Revised Curriculum	89
F	A Description of Undergraduate Courses.	100
G	Curriculum Revision Evaluation Conceptual Frameworks.	105
H	Proposed RNB Curricular Pattern	116
I	Contributions of Project Grant Related to Learning Resources	
	Learning Resources Totaling $26,000 Funded at Faculty Request.	118
	Sample Letter Requesting Media Duplication Permission.	131
	Authorization Form Accepted by Distributing Companies.	132
	Instructional Media Evaluation Form.	133
J	An Analysis of School of Nursing Philosophy, Terminal Program Objectives and the Emerging Role of the Nurse.	134
K	Faculty Evaluation of Achievement Tests, 1973-1976.	135
L	Sample of Student Clinical Evaluation Form.	137
M	University of Washington School of Nursing Student Record Evaluation Form.	139
N	Summary of Student Record, Psychological Test and Student Characteristics Data, Summer, 1975.	152
O	Summary of Student Record Data, Classes of 1973-1975, 1977 and Entering Profile of Class of 1978	153
P	Review of Literature Pertaining to Student Record Data Prepared by Dr. Vivian Wolf-Wilets.	158
Q	Psychological Test and Student Characteristics Questionnaire Results:	
	Personal Orientation Inventory--Mean Scores, Classes of 1973-1976 and Profile Sheet for the Personal Orientation Inventory.	171
	Myers-Briggs Type Indicator--Mean Scores, Classes of 1973-1976; Activities Index--Mean Scores, Classes of 1973-1976; and College Characteristics Index--Mean Scores, Classes of 1973-1976	172
	Student Characteristics Questionnaire Results, Classes of 1973-1976	173

Appendix — Page

R — Literature Review and Hypothesis to be Tested for POI, Myers-Briggs, AI and CCI Data Prepapred by Dr. Vivian Wolf-Wilets . 176

S — Results of Faculty Perception of Curriculum Questionnaires, 1973. . 220

T — Student Evaluation of Modules 225

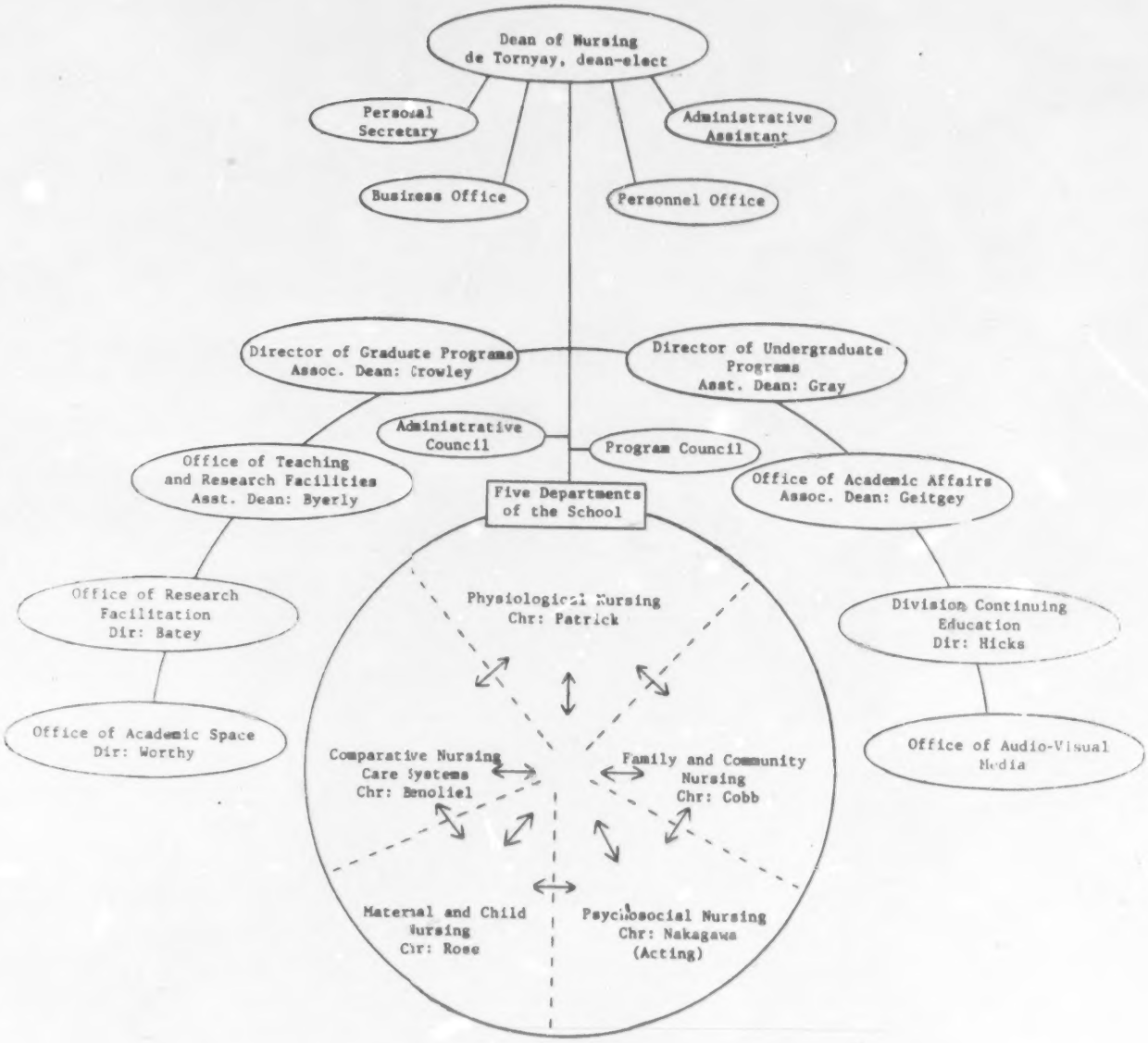
U — Sample of Student Evaluation of Course Content. 227

V — Memo from Attorney General Regarding Transfer of Grant Data, June 19, 1975 230

APPENDIX A

UNIVERSITY OF WASHINGTON

ORGANIZATIONAL STRUCTURE OF THE SCHOOL OF NURSING



Key:

——— Line Relationship

- - - - - Staff Relationship

⟷ Open Interactional Flow in Communication and Knowledge Areas

Revision
August 1974

APPENDIX B

FACULTY WHO SERVED AS GRANT PERSONNEL

YEAR	NAME AND TITLE	APPOINTED TIME
1971-72	*Vivian C. Wolf, Assistant Professor	Full time
	+Cecilia M. Smith, Instructor (hired Jan.)	Full time
1972-73	*Vivian C. Wolf, Assistant Professor	Full time
	+Cecilia M. Smith, Instructor	Full time
	√Frances E. Briscoe, Associate (hired Sept.)	Part time
1973-74	*Vivian C. Wolf, Assistant Professor	Full time
	+Cecilia M. Smith, Instructor	Full time
	√Frances E. Briscoe, Associate	Part time
	×Ursel S. Krumme, Research Associate (hired Oct.)	Part time
1974-75	*Vivian C. Wolf, Associate Professor	Part time
	+Cecilia M. Smith, Instructor (June-Aug.)	Full time
	×Ursel S. Krumme, Research Associate (June-Oct.)	Part time
	+ (Nov.-May)	Part time
	√Frances E. Briscoe, Associate	Part time
	×Gladys Ancrum, Research Associate (hired Feb.)	Part time
	∫Maxine S. Leckie, Research Associate (hired Nov.)	Part time
Summer '75	Vivian C. Wolf, Associate Professor, special assignment	Part time
1975-76	*Ursel S. Krumme, Research Associate	Full time
	+Gaylene M. Altman, Research Associate (Aug.-Dec.)	Part time
	(Jan.-May)	Full time
	√Frances E. Briscoe, Associate (June-Aug.)	Part time
	∞Carolyn J. Kellogg, Lecturer (Sept.-May)	Part time
	∫Maxine S. Leckie, Research Associate (June-May)	Part time

Project Titles:

*Director and Principal Investigator
+Assistant Director
√Research Assistant/Advisor
×Evaluator
∫Research Analyst
∞Advisor

University of Washington Correspondence

INTERDEPARTMENTAL

School of Nursing

Office of the Dean

May 15, 1975

To: Dr. Vivian Wolf
Ms. Ursel Krumme

From: Dorothy M. Crowley DMC
Acting Dean

Re: Baccalaureate Revision Grant

As you know, Dr. Wolf has been awarded an ACE Administrative Internship and plans to take a nine-month leave of absence, beginning September 15, 1975. This, of course, will necessitate Dr. Wolf's resignation as Director of the Baccalaureate Revision Project and raises the question of whether:

1) it is possible to carry on with the proposed fifth year of the project, and,
2) if possible, is it necessary and feasible.

The funding for the fourth year of the project terminates May 31, 1975; a proposal for a fifth year was submitted; we have not been notified as to whether the fifth year will be funded, of, if funded, what the level of funding will be.

After considerable discussion, consultation and reflection, I have concluded that if the project is refunded at or near the level proposed, and, providing certain contingencies can be met, it would be advisable to continue the project for the fifth year. The contingencies I see are:

1) ability to secure a director of the project who is knowledgeable of the school's baccalaureate program and with advanced preparation in Nursing Education;
2) ability to develop a plan for the fifth year consistent with the school's priorities in respect to the baccalaureate revision. These priorities are:

   first: to implement this proposed curriculum pattern for both the basic baccalaureate and the registered nurse baccalaureate programs,
   second: to develop and implement a plan for evaluating learning outcomes of the new curriculum pattern,
   third: to bring to a successful closure those parts of the project which can be completed before the end of Summer Quarter,
   fourth: to provide for an orderly transition of the essential functions of the office to relevant existing structures in the school, i.e., educational media office, undergraduate office, etc., and

fifth: to accomplish the final reporting of the project.

Therefore, I would submit the following proposal for your consideration, providing funding is forthcoming (and providing the funding agency will agree):

1) Dr. Wolf be relieved of her administrative responsibility to the grant and placed on special assignment to complete those aspects of the project in which she has been most intensely involved, and which, if given an opportunity and the following support, she believes she can bring to a closure prior to her leave of absence. The support to be assigned to her would include:

   1.0 FTE secretary
   0.5 FTE associate (F. Briscoe)
   0.5 FTE research analysit, 1 month (M. Leckie)
   Computer Services $500 - 1000

2) Ms. Krumme be recommended for the position of Acting Director to assume responsibility for administration of the grant, replacing Dr. Wolf in this capacity for the 1975-76 year;
3) Ms. Krumme review the objectives of the project in the light of the initial objectives of the project; what has been accomplished to date; the priorities of the school as delineated above; and propose a plan of operation for 1975-76.

I think you are aware of how deeply concerned I am that, if funding is granted and accepted for the coming year, the best interests of the school and the funding agencies, as well as those of the individual faculty and staff involved, are served. To take over the administration of a grant in its final year of funding is not an easy task, therefore, I believe it is important to phase in the new director as soon as possible. Dr. Wolf has been with the project since its inception. She has invested heavily in the project. There are aspects of the project that only she can bring to a closure. Therefore, I believe it is only fair to support those parts of the project that can be finished up before she leaves.

I will expect Dr. Wolf to write up a progress report for that period from March 1975 through August 14, 1975 before she leaves. I would appreciate hearing from you as soon as you have had an opportunity to consider the above.

Obviously, this is only a proposal. There are several unknowns, however, I believe it is imperative that this transition to the fifth year be accomplished as efficiently and with as little disruption as possible.

DMC:JBL

CC: Dr. Rheba de Tornyay, Dean Designate
Jack Carney, Administrator
Florence Gray, Director, Undergraduate Program
Dr. E. Giblin, Special Assistant to the Dean

APPENDIX D

WORKING PHILOSOPHY OF NURSING

PREAMBLE

1. The School of Nursing offers undergraduate and graduate nursing prepared within the framework of the overall philosophy of the University of Washington.

2. The faculty assumes the responsibility for the quality of the educational programs offered and for promoting effective nursing for the public through teaching, research, and service.

3. Successful completion of the undergraduate programs with the appropriate level of academic achievement enables the student to continue directly into graduate study.

4. Responsive to the changing needs within our society and acknowledging the growing involvement of citizens concerned with their health care and the quality of their total environment, the faculty of the University of Washington School of Nursing accepts the following statements as a reflection of their beliefs.

WE BELIEVE:

5. Each human being is endowed with individual qualitites but holds in common with other humans the basic need for dignity, respect, and recognition of his individual worth and uniqueness.

6. The individual develops as a whole being and interacts with his environment.

7. Man is concerned with the quality of his life.

8. Man is affected by and affects his environment through a dynamic, reciprocal relationship which involves his health and his ability to develop his potential.

9. Each person has a right to participate in the decisions affecting his life.

WE BELIEVE:

10. Man's ability to utilize his full potential is basic to health.

11. Health is influenced by the changes which affect man and his environment and vice versa.

12. All persons have a right to competent health care services.

13. It is essential the disciplines within the health care systems understand the complexity and effects of change and the processes involved.

14. Health care disciplines have the responsibility for and the ability to collaborate with the recipients of their services.

Working Philosophy of Nursing

WE BELIEVE:

15. The events of the present presage even more rapid change in the years ahead.

16. Persons and social units vary in their ability to deal effectively with change and its results.

17. Preparation of professional nurses capable of promoting and meeting present and future challenges demands a flexible curriculum responsive to change.

WE BELIEVE:

18. Nursing is a health care discipline and exists to promote health and provide care.

19. Nursing has a professional responsibility to expand its body of knowledge through research.

20. Nursing should initiate and respond to changes pertinent to the health of man and his environment.

21. Nursing is a caring process which involves working with others and through others.

22. The process responds to the basic human need for compassion and dignity.

23. Caring encompasses the provision of those elements necessary for promoting, conserving, or restoring health or enabling a dignified death.

24. It includes those activities which persons would perform unaided if they had the strength, will, knowledge or courage to do so.

25. Implicit in caring is respect for the individual which is essential to the realization of his maximum potential for health.

26. Caring is the acceptance of responsibility for another person or persons in situations where protection or assistance is needed.

27. The caring process is demonstrated through nursing actions based on theories and knowledge, drawn from nursing, the physical and behavioral sciences and the humanities.

28. Nursing actions should be scientific, rational, and deliberate.

WE BELIEVE:

29. Baccalaureate education in nursing assists an individual to become an informed educated, and compassionate person with a foundation for competent nursing practice, professional leadership and effective participation in community affairs.

30. Basic to learning the above is the individual's self-awareness and his individual involvement in the learning process.

Working Philosophy of Nursing

31. Baccalaureate education serves as a stimulus for the student to accept responsibility for development of his maximum potential and to continue in a life-long educational pursuit if he so desires.

32. Students come to the program with diverse and varying educational and personal experiences.

33. Persons desiring baccalaureate education in nursing are allowed to enter at a point complimentary to their individual background.

34. Throughout the program students are encouraged to assume increasing self-direction and independence.

WE BELIEVE:

35. The baccalaureate graduate is prepared to make informed judgments and to do critical thinking.

36. The graduate is able to assume the initiative and responsibility for making nursing decisions and formulating new approaches as necessitated by varying circumstances and technological advances.

37. Essential to the development of the above processes is a curriculum based on knowledges and scientific findings from nursing, the physical and behavioral sciences and the humanities.

38. Opportunities for learning include multiple types of experiences and environments.

39. Students and faculty share in the search for excellence in nursing through the manipulation, synthesis and testing of theories and abstract ideas and their relationships.

WE BELIEVE:

40. Core content germane to professional nursing practice is provided for all students enrolled in baccalaureate education.

41. Increased complexity of nursing knowledge and practice precludes intensive preparation in all major areas of nursing practice at the undergraduate level.

42. Exposure to specialization is offered through opportunities to pursue selected nursing and related interests.

The Philosophy of Nursing was prepared by the Philosophy Task Force, Linn Larson and Alma Ware, Co-Chairmen, November 17, 1970.

APPENDIX E

DEFINITION OF TERMS AS USED IN THE TERMINAL PROGRAM OBJECTIVES FOR THE REVISED CURRICULUM

The Student:

I. Assesses with individuals and groups, their health-illness status and context in order to determine nursing care implications.

A. Definition of terms

1. Assesses - is defined as the behavior described in Bloom's taxonomy level 6, evaluation (2, 207). To make quantitative and qualitative judgments based on standards of appraisal or criteria.

Implied in this objective is the use of the following types of judgments.

a. Judgments in terms of internal evidence - In this type of judgment the nurse carefully documents information and observations about the individual, group and the setting. Stressed within this component is the systematic gathering of evidence, the exactness of the statements, the documentation and proof, and the verification of inferences with the data source. An example of how the graduate would do this is: she would obtain a nursing history and do an assessment which considered all the social, psychological, cultural and physiological aspects of patient care. She would base this on an assessment tool which she would modify as it was appropriate to this individual. She would draw on all data sources such as interviews, charts and observations in the situation obtained from the patient, other health workers, the family and the community. While carrying out the process of evaluation she is weighing the internal evidence to see if it is logically consistent.

b. Judgments in terms of external criteria - Examples of external criteria are her synthesis of major theories, principles and research findings from psychology, sociology, anthropology, physiology, the natural sciences and nursing. Other criteria are her comprehension of characteristics of health and illness, and growth and development.

To arrive at judgments of situation, the nurse compares the evidence in this situation with the internal and external situation. For example, there are standards established which indicate what components are necessary for an adequate diet. These standards can be compared with the patient's diet or group's diet.

In order to make these judgments the nurse will draw upon a variety of other abilities. Since evaluation is at highest level of the taxonomy, it subsumes all the lower abilities. In most instances the nurse will need to be skilled in interpersonal interaction in order to obtain the information necessary for making an evaluation. As indicated earlier, logic is necessary to examine the relationship of parts.

Judgment needs to be applied to determine what may be defined as the problems within the situation and the priorities which should be assigned to these problems. Judgment helps determine which of these problems can be dealt with by nurses and which problems require the assistance of other individuals.

Terminal Objectives

c. Judgments in which the criteria may not be known - In many nursing situations the nurse may have to study the data from situations to determine what criteria or categories best describe the observations made.

2. Individuals - one person at any age.

3. Group - any collective unit which consists of two or more persons at any age. (10, 641)

4. a. Health - "is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity." (3)

b. Illness - "an unhealthy condition of the body or mind; sickness; disease." (10, 724)

5. Status - condition, state or position. (10, 1425)

6. Context - includes the following characteristics:

a. Refers to the total setting in which events or situations occur which helps one to explain the meaning of the events, or the interactional and situational phenomena.

b. Includes the operation of multiple social structural features which are needed to adequately or fully explain a number of interrelated situations or events.

c. Implies the weaving together of a number of interrelated parts of a human phenomena to explain human behavior in a large Gestalt framework. (6, 111-112)

7. Nursing care - our philosophy statements give us the following kinds of definitions for nursing care:

a. Nursing is a health care discipline and exists to promote health and provide care.

b. Nursing has a professional responsibility to expand its body of knowledge through research.

c. Nursing should initiate and respond to changes pertinent to the health of man and his environment.

d. Nursing is a caring process which involves working with others and through others.

e. The process responds to the basic human need for compassion and dignity.

f. Caring encompasses the provision of those elements necessary for promoting, conserving or restoring health or enabling a dignified death.

g. It includes those activities which persons would perform unaided if they had the strength, will, knowledge or courage to do so.

Terminal Objectives

h. Implicit in caring is respect for the individual which is essential to the realization of his maximum potential for health.

i. Caring is the acceptance of responsibility for another person or persons in situations where protection or assistance is needed.

j. The caring process is demonstrated through nursing actions based on theories and knowledge, drawn from nursing, the physical and behavioral sciences and the humanities.

k. Nursing actions should be scientific, rational and deliberate.

(Philosophy of Nursing Statements 18 - 28)

8. Implications - the word implication is defined as "an implicating or being implicated; an implying or being implied; something implied from which an inference can be drawn." (10, 730)

II. Collaborates with others to synthesize plans to improve health care.

A. Definition of terms

1. Collaborates - collaborate is defined as "to work together especially in reference to literary, artistic or scientific work." (10, 286)

2. Others - other health workers or patients, consumers, or groups to improve health care.

3. Synthesize - synthesis has been defined as "the putting together of elements and parts so as to form a whole. This involves the process of working with pieces, parts, elements, etc., and arranging and combining them in such a way as to constitute a pattern or structure not clearly there before." (2, 206) Planning before doing may be helpful, but continual planning and modifying planning while doing is necessary.

In order to make a plan of nursing care or health care the nurse must formulate what she believes to be the abstract relationships which either classify, explain particular data or phenomena. She may deduce propositions or relations from a set of basic propositions or symbolic propositions. Some of these propositions may be stated as hypotheses.

For example, from the evaluation of the situation of an individual the nurse finds the following information:
. . . the patient spends all his time lying in bed
. . . the patient's weight when compared to data for his height and size is far under desirable weight
. . . the patient's skin over the sacral area is dark blue
. . . the nurse with her knowledge of physiology and anatomy judges that this patient is in danger of getting a decubitus ulcer

The abstract relationships formulated by the nurse may be X set of treatments or care is useful in preventing Y, decubitus ulcers. This patient

has Y set of signs and symptoms (characterizing the onset of decubitus ulcers). She may hypothesize X set of treatments or care applied to this patient will reduce Y set of signs and symptoms.

4. Plan - may be for a one-to-one interaction such as teaching a patient foot care, or a plan may coordinate the action of several groups and agencies in meeting the nursing and health care needs of many individuals. An example of the latter would be organizing a nursing clinic in a housing project.

Most plans will establish priorities and a time sequence. The plans must logically relate the goals to be attained to the steps to be taken. This implies that if a plan is viewed as being at cognitive taxonomy level 5, synthesis, that knowledge and comprehension of the problems, goals and possible alternative courses of action are subsumed. If these are not subsumed the ability to apply the process of how one goes about delineating these alternatives must be subsumed.

5. Improve - "to raise to a better quality or condition." (10, 732)

6. Health care - to watch over, to give attention to, to protect in order to bring about a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. (3) (10, 220)

III. Formulates a plan of nursing care which contributes to the total plan of health care.

A. Definition of terms

1. Formulates - used as "synthesize" was previously defined.

2. Plan - used as previously defined.

3. Nursing care - used as previously defined.

4. Contributes - contribute is defined as "to give or provide jointly with others; to write or give; to give or to furnish; to have a share in bringing about; be partly responsible for." (10, 321)

5. Total - "constituting the (or a) whole; complete." (10, 1538)

6. Health care - used as previously defined.

IV. Implements plans for health and nursing care within broad health care plans or systems.

A. Definition of terms

1. Implements - "to carry into effect; fulfill; accomplish; to provide with the means for carrying into effect or fulfilling; to give practical effect to; to provide with implements." (10, 730)

Terminal Objectives

In order to implement plans the nurse may have to provide technical skills or continually apply judgments about the individuals or situations. At times she may administer physical care such as positioning patients or doing treatments. In some circumstances she may have to work with groups to modify their information levels and attitudes. The nurse may be working predominantly with only a patient or family. Therefore, this objective could go to evaluation, cognitive taxonomy level 6, or psychomotor taxonomy level 7, origination - "creating new motor acts or ways of manipulating materials out of understandings, abilities, and skills developed in the psychomotor area." (7) In order to carry out this objective the nurse will continually draw on her values or value complex. This means that her activities will characterize her internalized individual value hierarchy. This means that implementation will also require affective behavior at the highest level, affective taxonomy level 5.

2. Plans for health and nursing care - used as previously defined.

3. Broad health care plans - broad health care plans will take into account numerous criteria for improving the health of the individual and group and may require cooperation, coordination and planning with others such as family, other health workers or other agencies.

4. Broad health care systems - the network of interaction, patterns of interdependence and interrelationships among and between the many sub-components of society which are involved in or related to the delivery of health care. (Definition in Proposed Department of the School of Nursing, January 1971.)

V. Implements teaching to improve nursing and health care.

A. Definition of terms

1. Implements - used as previously defined.

2. Teaching - "to educate, to instruct, to train, to demonstrate, to give lessons to, to provide with knowledge, to facilitate the learning of another individual." (10, 1494-1495)

3. Improve - used as previously defined.

4. Nursing - used as previously defined.

5. Health care - used as previously defined.

VI. Evaluates the effectiveness of nursing care and health plans and systems.

A. Definition of terms

1. Evaluates - used as "assesses" was previously defined.

2. Effectiveness - the results, the effect, the consequences.

Terminal Objectives

The nurse will make judgments about the results of actions or treatments that have been used to improve health by observing signs and symptoms or indicators of consequences as seen in patients or groups. Some of the effects she observes she will report to others so that they may take further action. Some of the effects she observes she will use to modify her assessment of the strengths and needs of individuals and groups and actions that are needed to assist them toward health.

She will make judgments about the results of the coordinated health planning and the effectiveness of the networks, patterns and interrelationships which are being used to deliver health care.

3. Nursing care - used as previously defined.

4. Health care - used as previously defined.

5. Plans - used as previously defined.

6. Systems - used as previously defined.

VII. Develops and maintains helpful relationships with individuals that would facilitate health care.

A. Definition of terms

1. Develops and maintains - should be defined as going to the level of characterization, level 5, affective taxonomy. (5, 184-185)

2. Develops and maintains helpful relationships - is to establish an interaction with another individual or group in which a basis of trust exists; where a level of mutual understanding of the meaning of each other's behavior exists. This relationship should lead to the fostering of personal growth and development of the individual involved. Each party in the relationship is capable of communicating and understanding what is communicated by the other party. (9, 25)

3. Individuals - used as previously defined.

4. Facilitate - "to make easy or easier; to assist; to help." (10, 520)

5. Health care - used as previously defined.

VIII. Is committed to using research knowledge applicable to nursing and health care.

A. Definition of terms

1. Is committed to - definition of commitment level 3.3, affective taxonomy is:

"Belief at this level involves a high degree of certainty. The ideas of 'conviction' and 'certainty beyond a shadow of a doubt' help to convey further the level of behavior intended. In some instances this may border

on faith, in the sense of it being a firm emotional acceptance of a belief upon admittedly nonrational grounds. Loyalty to a position, group, or cause would also be classified here.

"The person who displays behavior at this level is clearly perceived as holding the value. He acts to further the thing valued in some way, to extend the possibility of his developing it, to deepen his involvement with it and with the things representing it. He tries to convince others and seeks converts to his cause. There is a tension here which needs to be satisfied; action is the result of an aroused need or drive. There is a real motivation to act out his behavior." (5, 182)

2. Research knowledge - is nursing research, or physical, social science or medical research which can be applied to health care and is within the knowledge and scope of nursing. The amount of research knowledge that can be understood and utilized by nurses is expanding. For this reason and because the role of nursing is expanding, the nurse must continually judge what research she should attempt to apply.

In this objective the nurse will judge when research knowledge is applicable to nursing and health care and she so values the use of research knowledge to improve health care that, whenever possible, she uses it and continually keeps increasing her knowledge of pertinent research.

3. Nursing - used as previously defined.

4. Health care - used as previously defined.

IX. Applies research skills to solve and/or study nursing and health problems.

A. Definition of terms

1. Applies - utilizes in a new situation.

This term is used as the term application is used in Bloom. (2, 120-143)

2. Research - systematic gathering of data for the purpose of deriving scientific generalizations which can be used to solve problems; systematic way of studying the relationships between variables. Logic is used to formulate the relationships within the research design.

3. Skills - a skill is "an ability or proficiency." (10, 1366)

4. Problems - a problem is "a question proposed for solution or consideration; a question, matter, situation or person that is perplexing or difficult." (10, 1161)

X. Appreciates the historical aspects of the profession of nursing and health care and their relationship to current and futuristic goals in the delivery of health care service.

Terminal Objectives

A. Definition of terms

1. Appreciates - the definition of appreciation is preference for a value level 3.2 of the affective taxonomy. "Behavior at this level implies not just acceptance of a value to the point of being willing to be identified with it, but the individual is sufficiently committed to the value to pursue it, to seek it out, to want it." (5, 181)

2. Historical - an account of what has happened; what has happened in the life or development of the profession; an analysis and explanation of what has happened; a recording, analyzing, coordinating and explaining of past events. (10, 689)

3. Professional - implies competency in resolving problems of practice requiring primarily intellectual skills in recognized and specified responsibilities: continual mastery of a body of knowledge relevant to the solution of practical problems and expansion of knowledge through basic and applied research, and the personal attributes necessary to apply the knowledge and deliver the service. Social awareness and leadership in public affairs. Ethical code accepted by the profession as a guide in judgments. (Definition supplied by Dr. Dorothy Crowley, School of Nursing.)

4. Nursing - used as previously defined.

5. Health care - used as previously defined.

XI. Is characterized by the appropriate use of independent, leadership and collaborative role relationships as indicated by the goals to be accomplished.

A. Definition of terms

1. Is characterized by - is used in the same manner as affective taxonomy "when the values already internalized in an individual's value hierarchy are organized in some kind of internally consistent system, and control the behavior of the individual for a sufficient time that the individual acts consistently in accordance with the values he has internalized. The values may often be an unconscious set which guides actions without conscious forethought." (5, 184-185)

2. Role - a behavioral repertoire characteristic of a person or position; a set of standards, descriptions, norms, or concepts held for the behaviors of a person or position. (1, 26-31)

3. Goals - aim or purpose.

The nurse values the contributions that she has to make and the contributions of others when working toward goals in relation to health care. These values are part of her consistent action tendencies and as she continues to make judgments about the aspects of the goals she will consistently use appropriate role relationships. The appropriateness of the relationships will be indicated by the desirable group and individual effects and the positive steps toward the health care goals.

Terminal Objectives

The nurse knows which functions she can carry out independently and which functions it would be desirable to carry out collaboratively. She continually judges when to function as a leader, independently or collaboratively.

XII. Is characterized by a concern for the uniqueness and rights of individuals and groups in relation to health care.

A. Definition of terms

1. Is characterized by - used as previously defined.

2. Unique - "one and only; single; sole. Different from all others; having no other like or equal. Singular; unusual; extraordinary; rare." (10, 1591)

3. Rights - "that which a person has a just claim to; power, privilege which belongs to a person by law, nature, or tradition." (10, 1254)

4. Individuals - used as previously defined.

5. Groups - used as previously defined.

6. Health care - used as previously defined.

XIII. Is characterized by continually developing self-awareness.

A. Definition of terms

1. Is characterized by - used as previously defined.

2. Self-awareness - is to learn more about one's strengths and weaknesses, talents and abilities, and preferences.

XIV. Continues developing the ability to learn and being responsible for own learning.

A. Definition of terms

1. Ability to learn - learning "is a change in human disposition or capability, which can be retained, and which is not simply ascribable to the process of growth." (4, 5)

This means the nurse values highly the ability to learn and continually seeks opportunities to develop her ability to learn.

The ability to learn is the way in which one goes about bringing changes in his behavior which are not the result of maturation. The ability to learn can be enhanced by knowledge of inquiry processes and methods, and practice in utilizing these processes and methods. For example, learning

to read is a process which enhances one's ability to learn other things. The inquiry methods of various disciplines, when mastered, enhance the student's ability to learn in that discipline. For example, there are methods of inquiry utilized in chemistry, biology, nursing and other disciplines and if the student increases her skill in utilizing these methods, she will increase her ability to learn in that area.

2. Being responsible for own learning - this means the student has learned how to decide what she needs to learn and will learn what she can by herself and seek assistance from other sources when they are needed to facilitate her learning.

XV. Is characterized by using social actions with responsibility to bring about changes in the interest of promoting health.

A. Definition of terms

1. Is characterized by - used as previously defined.

2. Social action - acts and activities which modify the way in which human beings live or interact. Social action may be used to bring about changes in social systems made up of any individual or group of individuals. Other examples may be modification of educational programs for health care, or modification of administration of present health programs. Social action may also be involved in helping bring about changes in families' living environments. (8)

3. With responsibility - responsible is defined as "the condition of being accountable, liable, answerable, trustworthy, dependable, reliable." (10, 1240)

4. Change - "to cause to become different; to alter, convert, to vary, to substitute, to transform." (10, 244)

5. In the interest of - "for the sake of." (10, 762)

6. Promoting - "to further the growth or establishment of, to work actively and stir up interest for the accomplishment of, to raise or move forward to a higher or better position." (10, 1166)

7. Health - used as previously defined.

XVI. Is characterized by the ability to use dynamic technological advances to improve nursing and health care.

A. Definition of terms

1. Is characterized by - used as previously defined.

2. Technological - technology is defined as "technical language. Applied science; technical method of achieving a practical purpose. The totality of the means employed to provide objects necessary for human sustenance

and comfort." (11, 905)

3. Improve - used as previously defined.

4. Nursing - used as previously defined.

5. Health care - used as previously defined.

The nurse will use new technology as it develops and she will recognize its strengths and limitations and will supplement the nursing care needed to overcome its limitations. She will use its strengths to maximize the care and its effectiveness whenever possible. Implied in this objective is the fact that the nurse will value technology for the benefits which it can bring to patients and she will not avoid the use of technology because of fears of technology.

APPENDIX F

A DESCRIPTION OF UNDERGRADUATE COURSES

263 COMMUNICATION IN HELPING RELATIONSHIPS (3) Winter and Summer. Prerequisites: Sophomore standing and Psychology 100 or 101.

Introduction to communication within the helping process. Factors affecting communication such as anxiety, anger. The setting and purpose are discussed. Interviewing individuals and analyzing the interactions required. Open to non-nursing majors with permission of instructor.

281 NURSING PROCESS 1 (6) Winter and Summer. Prerequisites: Sophomore standing, Microbiology 301, Conjoint 317-318, Chemistry 101 and 102, Basic Biomechanics for Nursing (PE205), Pharmacology 315 and Home Economics 319 (all of which may be taken first or concurrently).

Beginning course in Nursing Process: systematic method of assessing human needs and maintaining optimal health. Theory, seminar, and clinical laboratory include application of the process to selected functional status abilities of patients in various clinical settings. (Three hours theory, seminar; 8 hours laboratory weekly.)

297 HUMAN DEVELOPMENT I: ADOLESCENCE THROUGH AGING (4) Winter and Summer. Prerequisites: Sophomore standing and Conjoint 317-318 or equivalent, or permission.

Study and practice include parameters of growth and development from adolescence through early adulthood and middle age to old age: developmental tasks related to these age periods; environmental influences that affect maturation; contemporary life styles and developmental trends. Open to non-nursing majors with permission. (Two hours lecture, 4 hours laboratory weekly.)

300 HUMAN DEVELOPMENT II: CONCEPTION THROUGH SCHOOL AGE (4) Autumn and Spring. Prerequisites: N297 and sophomore standing.

Further development of knowledge and skills established in 297. Development of assessment skills and knowledge basic to management of infants, preschoolers, school-age children. Study and practice include parameters of normal growth and development from conception through school age; child-rearing practices; selected behavior patterns; environmental influences on growth and development and major parental concerns. Open to non-nursing majors with permission. (Two hours lecture, 4 hours laboratory weekly.)

302 NURSING PROCESS II (6) Autumn and Spring. Prerequisites: 281; 300 and 303 may be taken concurrently or prior to.

Continuation of 281. Theory and seminar: nursing process related to selected human needs. Clinical laboratory increases depth and breadth of nursing process and skills. (Three hours theory, seminar; 8 hours laboratory weekly.)

303 PSYCHOSOCIAL CARE IN ADAPTIVE AND MALADAPTIVE BEHAVIORS I (2) Autumn and Spring. Prerequisites: 263, sophomore standing and Psychology 100 or 101, or permission.

Behavioral responses to social, psychological, and physiological factors. Rationale and techniques for care and treatment: crises intervention, chemotherapy, counseling. Contemporary issues in prevention and treatment. Open to non-nursing majors with permission.

321 NURSING CARE OF ILL ADULTS AND CHILDREN I (4) Autumn and Spring. Prerequisites: 263, 300, 302, 303. Taken concurrently with 322 or 324, or later with permission.

Commonly occurring alterations, involving concept of dynamic equilibrium and compensatory mechanisms that produce broad pathological changes, are considered as a basis for comprehensive nursing interventions in the care of the ill adult and child.

322 NURSING CARE OF ILL ADULTS AND CHILDREN I LABORATORY (8) Autumn, Winter, Spring and Summer. Prerequisites: 263, 300, 302,303. Taken concurrently with 321 or 323, or later with permission.

Application of scientific principles to the nursing care of ill adults and children in the acute care setting. A problem solving approach is used throughout the nursing process. Three weeks of operating room experience in this course or in 324. (Two hours clinical seminar, 14 hours laboratory weekly.)

323 NURSING CARE OF ILL ADULTS AND CHILDREN II (4) Winter and Summer. Prerequisites: Taken concurrently with 322 or 324, or later with permission.

Alteration of function in selected systems leads to broadening and deepening knowledge relevant to the care of ill adults and children. Emphasis is on the preventive, maintenance, and restorative elements of comprehensive nursing care; immediate, acute, and long term.

324 NURSING CARE OF ILL ADULTS AND CHILDREN II LABORATORY (8) Autumn, Winter, Spring and Summer. Prerequisites: Taken concurrently with 321 or 323, or later with permission.

Application of scientific principles in caring for ill adults and children, with emphasis on identification of common elements and significant differences in providing care for patients with increasingly complex health problems. Comprehensive nursing care will include experiences with persons in the acute care setting, the community, and nursing homes. (Two hours clinical seminar, 14 hours laboratory weekly.)

325 NURSING CARE OF ILL ADULTS AND CHILDREN III (4) Autumn, Winter, Spring and Summer. Prerequisites: 323, 324 or permission.

Focus on alterations in function of specific systems in all age groups in the various phases of illness. The nursing process is retained as the organizational framework. The student is assisted to integrate understanding gained in preceding courses and to extend knowledge of illness dynamics.

326 NURSING CARE OF ILL ADULTS AND CHILDREN III LABORATORY (8) Autumn, Winter, Spring and Summer. Prerequisites: 323,324. Taken concurrently with 325 or later with permission.

Focus is on continuity of comprehensive nursing care of adults and children, understandings of theories and principles from previous courses are deepened; skills are increased, content areas are broadened and are more complex. Synthesis and application become the integral foci of critical thinking, clinical judgment, and evaluation in the nursing process. (Two hours clinical seminar, 14 hours laboratory weekly.)

361 CULTURAL VARIATION AND NURSING PRACTICE (3) Autumn, Winter, Spring and Summer. Prerequisites: Upper division standing; Anthropology 202 recommended. Open to non-nursing majors with permission.

Ethnomedical beliefs, values, and practices pertaining to illness-wellness, care seeking, and healing. A comparative approach emphasizing cross-cultural similarities and differences. Focus is on value orientations influencing the effectiveness of professional nurses working with people of different backgrounds.

400 FAMILY-CENTERED MATERNAL AND CHILD NURSING IN THE COMMUNITY (6) Autumn, Winter, Spring and Summer. Prerequisites: 325, 326, 403, 407; Nursing 400 must be taken before 423 in Maternal and Child Nursing.

Focus is on the normal family through pregnancy, childbirth, child rearing, and climacteric. Clinical experiences are provided in community and institutional settings. (Two hours lecture, 8 hours laboratory weekly.)

401 MAXIMIZING HEALTH IN THE COMMUNITY - THEORY (2) Autumn, Winter, Spring and Summer. Prerequisites: 325, 326, 403, 407; Nursing 401 must be taken before 423 in Community Health Nursing.

Prevention of disease, health maintenance, and health promotion will be studied with focus on community organization, public health principles, health education, selected community health problems, and the nurse's role in promoting optimal health conditions. Synthesis of previous learned facts about the family and groups within the context of a community setting will be emphasized. (Two hours lecture weekly.) (First time offered Winter 1977.)

402 MAXIMIZING HEALTH IN THE COMMUNITY - CLINICAL (7) Autumn, Winter, Spring and Summer. Prerequisites: 325, 326, 403, 407; Nursing 402 must be taken before 423 in Community Health.

Application of the process of community health nursing and principles of community organization in promoting optimal health conditions within households, families, groups, and communities. The student will collaborate with health-team members using an interdisciplinary approach in a variety of settings. (Fourteen hours laboratory weekly including two hours clinical seminar.) (First time offered Winter 1977.)

403 PSYCHOSOCIAL NURSING CARE IN ADAPTIVE AND MALADAPTIVE BEHAVIORS II (3) Autumn, Winter, Spring and Summer. Prerequisites: Open to nursing majors with junior standing.

Concepts and principles of care of emotionally disturbed persons with emphasis on the social milieu. Includes study of dynamics and behavior patterns associated with maladaptive behavior, plus theories and rationale of nursing intervention and rehabilitation. (Three hours lecture weekly.)

405 CARE SYSTEMS ANALYSIS (3) Autumn, Winter, Spring and Summer. Prerequisites: Upper-division standing. Open to non-nursing majors with permission.

Comparative analysis of past, current, and emerging health care systems and their effect on the delivery of nursing care services. Emphasis on the health care needs and values of the public and socioeconomic, political, and technological factors that influence the delivery of nursing care services.

406 INTRODUCTION TO RESEARCH IN NURSING (3) Autumn, Winter, Spring and Summer. Prerequisites: One elementary statistics course, Sociology 223, Educational Psychology 490 or PC Biostatistics 472.

Introduction to concepts and processes of research utilized in investigation of nursing problems.

407 PSYCHOSOCIAL NURSING PRACTICE (7) Autumn, Winter, Spring and Summer. Prerequisites: Open to nursing majors with junior standing. To be taken concurrently or following 403.

Application of principles and concepts in care of emotionally disturbed persons with emphasis on treatment modalities such as group therapy, client-centered therapy, environmental management and social action. Includes experiences in acute care, day care, congregate care, and outpatient facilities. (Two hours clinical seminar, 12 hours laboratory weekly.)

408 THE PROFESSION OF NURSING (2) Autumn, Winter, Spring and Summer. Prerequisites: Open to nursing majors with senior standing.

Forces that have shaped, and are shaping the nursing profession will be examined, in particular those affecting nursing education. The legal and ethical commitments of the nurse will be discussed and, in addition, the political role of the individual nurse in influencing the introduction or modification of health legislation will be explored. Special emphasis will be placed on the role of women in the development of nursing, and a few selected leaders of nursing in the United States will be introduced. (Two hours lecture-discussion weekly.) (First time offered Winter 1977.)

423 NURSE PRACTITIONER IN SPECIAL FIELDS (12) Autumn, Winter, Spring and Summer. Prerequisites: Senior standing.

Further development, critical examination, and systhesis of nursing care in specialized area with focus upon practice, leadership skills, application of selected theoretical concepts, research findings and assessment of issues, problems, and forces impinging upon quality of care and health delivery modes. The student selects a specialized area for clinical experience in an urban or rural setting. (Two to five lecture hours, 21 to 30 laboratory hours weekly.) (First time offered Winter 1977.)

APPENDIX G

CURRICULUM REVISION EVALUATION CONCEPTUAL FRAMEWORKS

by

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They include a statement of the relation of the tests to the philosophy and objectives, a conceptual framework for the POI, and all other write-ups privately distributed to the advisory committee which were written by Vivian C. Wolf.

When the School of Nursing began working on their curriculum revision, philosophy statements were developed which represented what our faculty believed about the nature of man and the personal characteristics needed by the nurse. These characteristics and the characteristics as stated in our terminal objectives guided the selection of the personality tests that were used to evaluate the curriculum.

The following are statements from our philosophy which relate most directly to our view of man or personality characteristics that we perceive are necessary to nursing. The number in front of each statement represents the number of the statement as found in our philosophy. There are a total of 43 philosophy statements that were accepted.

5. Each human being is endowed with individual qualities but holds in common with other humans the basic need for dignity, respect, and recognition of his individual worth and uniqueness.

6. The individual develops as a whole being and interacts with his environment.

7. Man is concerned with the quality of his life.

8. Man is affected by and affects his environment through a dynamic, reciprocal relationship which involves his health and his ability to develop his potential.

9. Each person has a right to participate in the decisions affecting his life.

10. Man's ability to utilize his full potential is basic to health.

15. The events of the present presage even more rapid change in the years ahead.

16. Persons and social units vary in their ability to deal effectively with change and its results.

17. Preparation of professional nurses capable of promoting and meeting present and future challenges demands a flexible curriculum responsive to change.

20. Nursing should initiate and respond to changes pertinent to the health of man and his environment.

21. Nursing is a caring process which involves working with others and through others.

22. The process responds to the basic human need for compassion and dignity.

25. Implicit in caring is respect for the individual which is essential to the realization of his maximum potential for health.

26. Caring is the acceptance of responsibility for another person or persons in situations where protection or assistance is needed. (University of Washington School of Nursing, 1972).

28. Nursing actions should be scientific, rational, and deliberate.

29. Baccalaureate education in nursing assists an individual to become an informed, educated, and compassionate person with a foundation for competent nursing practice, professional leadership and effective participation in community affairs.

30. Basic to learning the above is the individual's self-awareness and his individual involvement in the learning process.

31. Baccalaureate education serves as a stimulus for the student to accept responsibility for development of his maximum potential and to continue in a life-long educational pursuit if he so desires.

34. Throughout the program students are encouraged to assume increasing self-direction and independence.

35. The baccalaureate graduate is prepared to make informed judgments and to do critical thinking.

36. The graduate is able to assume the initiative and responsibility for making nursing decisions and formulating new approaches as necessitated by varying circumstances and technological advances.

37. Essential to the development of the above processes is a curriculum based on knowledges and scientific findings from nursing, the physical and behavioral sciences and the humanities.

39. Students and faculty share in the search for excellence in nursing through the manipulation, synthesis and testing of theories and abstract ideas and their relationships.

In addition to these statements, there are five terminal objectives of the curriculum that relate most directly to the personality characteristics of the nursing student. There are sixteen objectives; the Roman numeral in the margin represents the number applied to each statement:

XI. Is characterized by the appropriate use of independent, leadership and collaborative role relationships as indicated by the goals to be accomplished.

XII. Is characterized by a concern for the uniqueness and rights of individuals and groups in relation to health care.

XIII. Is characterized by continually developing self-awareness.

XIV. Continue developing the ability to learn and being responsible for own learning.

XV. Is characterized by using social actions with responsibility to bring about changes in the interest of promoting health. School of Nursing Undergraduate Program, University of Washington (1972).

These statements in the philosophy and the objectives, when summarized, indicate the nursing student will be capable of being self-directing by being able to make independent decisions, judgments and assume responsibility. This self-direction should arise from self-awareness; an ability to relate themselves and their patients to present situations, past events, and future changes needed; from a positive view of man, his potential and wholeness; the ability to affectively relate to people; the ability to teach themselves from their experiences and to utilize theories and abstract ideas to improve themselves and their nursing care.

Our view of nursing and the development of nursing students was also furthered by our decision as to what were perceived to be the core areas of content, processes and skills that are basic to our view of baccalaureate education. Six core areas of content, processes and skills were identified. They were: human development; interpersonal-interactional skills; nursing process and skills in giving care to patients; social, cultural and health care systems; research and scholarship skills; and nursing specialization. When one examines the three different major types of models of nursing practice, namely, systems, developmental, interactional models presented by Roy and Riehl (1974) it can be seen that concepts in our new curriculum were a unique combination of concepts from several models. For example the wholeness of man is stressed by Rogers (1970) and Longway (1970) and man as a system in

interaction with his environment is stressed by Preisner ( ), Rogers (1970), Pierce (1968), Neuman (1972), Roy (1970), Johnson (1968), and Chrisman ( ). Both of these concepts are part of our philosophy. Our choice of core areas cuts across three of the major models of nursing cited by Riehl and Roy (1974), namely, systems models, developmental models and interactional models.

The overall problems of the curriculum evaluation were: (1) to describe the characteristics of our nursing students in relation to those characteristics described as desirable by the philosophy and objectives; and (2) to determine if these characteristics change in the direction described as desirable by the program; and (3) determine which characteristics of the students predict success in the program.

There were twelve purposes delineated for the overall evaluation approach in relation to the student characteristics, psychological testing and achievement data. They are the following:

1. Describe the social and psychological characteristics of our students as a basis for information about what the background of our students is like for curriculum implications.

2. Describe the social characteristics of our students so they can be compared with the national random sample of nursing students.

3. Describe the social, psychological and achievement characteristics of our students so they can be compared with other former studies of nursing students at the University of Washington.

4. Describe if the characteristics of the student body appear to be changing over time when compared to former studies done here at the University of Washington.

5. Determine which social, psychological and achievement variables predict which students will succeed in our program.

6. Determine if prediction of success is based on the same variables for the old and new curriculum.

7. Describe what psychological changes on selected tests occur in our students during the time they are in our program.

8. Determine if the psychological changes found in students during their time in the program are in the direction that would be described as desirable by the goals of our curriculum and the literature in nursing.

9. Compare the characteristics of our student body with norms established for psychological tests and descriptions of other nursing students or nurses described in the literature.

10. Compare the psychological, social and achievement characteristics of the seniors and sophomores in the old and new curriculum.

11. Evaluate whether or not the performance of students of the revised curriculum is significantly superior to that of students of the old curriculum on outside criterion tests or abilities.

12. Determine whether or not students of the old and revised curricula are meeting the objectives of each curriculum.

This article will deal with those specific purposes that relate to the psychological characteristics only. The purposes that relate to the psychological characteristics only are modifications of purposes 1, 3, 4, 5, 6, 7, 8, 9, and 10:

1. Describe the psychological characteristics of our students as a basis for information about what the background of our students is like for curriculum implications.

3. Describe the psychological characteristics of our students so they can be compared with other former studies of nursing students at the University of Washington.

4. Describe if the psychological characteristics of the student body appear to be changing over time when compared to former studies done here at the University of Washington.

5. Determine if psychological variables predict which students will succeed in our program.

6. Determine if prediction of success is based on the same variables for the old and new curriculum.

7. Describe what psychological changes on selected tests occur in our students during the time they are in our program.

8. Determine if the psychological changes found in students during their time in the program are in the direction that would be described as desirable by the goals of our curriculum and the literature in nursing.

9. Compare the characteristics of our student body with norms established for psychological tests and descriptions of other nursing students or nurses described in the literature.

10. Compare the psychological characteristics of the seniors and sophomores in the old and new curriculum.

Selection of the Instruments to Measure Personality Constructs.

A number of criteria were used for selecting the instruments for measuring personality characteristics of the nursing students. They were the following:

1. The instruments should be construct and content valid.

2. The instruments must have adequate reliability or be the best available

3. The instruments must be objective enough to be group scored by machine. The personnel available for the project did not make individual testing possible nor was hand scoring seen as desirable in relation to the limited number of personnel and large numbers of students.

4. If possible instruments were sought which have shown some relationship to prediction of success in nursing in the past. The best predictors of success in a school are frequently the instruments or measures that have predicted success in your own school in the past.

5. The instruments must be socially acceptable for the students to take. Since the students were being asked to take the test voluntarily they might reject taking a test if it seemed to ask questions they did not want to answer.

6. The instrument should have standardized norms available if possible. To develop new instruments is a project in itself and the development of new personality tests was judged to be beyond the scope of our project staff.

7. If data are available that would allow us to compare nursing students in our program over time then given equally desirable instruments the instruments which have been used before should be used again.

8. The battery of instruments used should not be highly intercorrelated. If information can be found on intercorrelations this should enter the decision; if not a correlation analysis should be done after the battery have been administered.

Personality Characteristics To Be Measured

The following characteristics were felt to be some of the most important to measure in relation to the characteristics sighted in the philosophy and objectives: self-directing, capable of acting independently, capable of making judgments, self-awareness, ability to relate to others, capable of dealing with change over time, a positive view of man, his potential and wholeness, the ability to affectively relate to people, the interest and ability to use theories and abstraction, interest in physical and social sciences and humanities, and nurturance or caring.

Numerous personality tests were reviewed in order to find tests that would measure the personality characteristics our curriculum presumes to modify. It seemed desirable to look at the personality characteristics of students when they entered the school of nursing and when they left. A change in the personality of the students would not necessarily be caused by the curriculum, but measurements of the characteristics of the students when they entered would tell us how close the personality characteristic of entering students are to what our philosophy and objectives state as desired of the graduate. It would also tell us if changes in the students occurred while they were in the program or if they changed in the direction that seemed desirable as stated in our philosophy or objectives. In addition, it seemed important to know whether students in the old curriculum were changing in ways which were different from students in the new curriculum. It was not possible to test students who entered the University of Washington as freshmen, and nearly half of the School of Nursing students enter in their sophomore year; therefore, the decision was made to test students entering in 1972 and 1973 as sophomores going into the old curriculum. These students would graduate in 1975 and 1976 as the last classes in the old curriculum. After 1977 the graduates would be in the new curriculum. The tests selected to be administered were Robert Stern's Activities Index, College Characteristics Index, Organizational Climate Index, the Myers Briggs Type Indicator and Shostrum's Personality Orientation Inventory. These tests were administered to sophomores for the first time in 1972 and to seniors for the first time in 1973. Table 1 presents an analysis of the personality constructs which are part of our philosphy and objectives and the scales of the personality tests that relate to these constructs. Following Table 1 are separate sections on the information relating to each test and some of the specific hypotheses that grew out of the literature, which should be examined.

TABLE I

Personality Constructs, Philosophy and Objectives Statement, and Evaluation Instruments.

PERSONALITY CONSTRUCTS	PHILOSOPHY STATEMENTS	OBJECTIVES STATEMENTS	MEASURED BY THE EVALUATION INSTRUMENTS
1. Ability to handle change	15, 16, 17, 20	XIX, XV	Activities Index subscale in change
1a. Change implies an ability to deal with the past, present, and future, therefore, time competence seems an important indicator of ability to handle change and make nursing planning to take the past, present and future into account.			P. O. I. time competence/incompetence
2. Need for and recognition of others' need for dignity, respect, worth and compassion	5, 22		P. O. I. self-regard subscale, self-acceptance subscale, Nature of Man subscale
3. Capable of thinking, making judgments, critical thinking and decisions. An individual making judgments and decision needs to have some inner values and self-direction and should be able to synthesize material using theories abstractions. Thinking and rational action based on knowledge of theories abstractions from H.S. & P.S. & capability of acting independently	9, 28, 34, 35, 36, 37, 39	XIV, XV	P. O. I. Inner or other direction (support ratio) Synergy scale
3a. Persons interested in using theories and abstractions	37, 39		Myers-Briggs - Thinking-feeling Sterns Activities Index - Intellectuality
3b. Capable of acting independently	20, 34, 36	XI, XIV	P. O. I. Support ratio Inner Direction
3c. Interest in physical and social sciences and humanities	37		Sterns Avtivities Index 17. Interest in Humanities and social sciences 26. Interest in science Myers-Briggs Type Indicator Extraversion-introversion

PERSONALITY CONSTRUCTS	PHILOSOPHY STATEMENTS	OBJECTIVES STATEMENTS	MEASURED BY THE EVALUATION INSTRUMENTS
			Thinking-feeling scale and the Judging-perceiving scale
			Sterns Activities Index
			25. reflectiveness
			29. Supplication dependency versus self-reliance
			30. Understanding-intellectuality
4. Ability to Relate to others and care for others	21, 22, 25	XI, XII, XV	P. O. I. Subscale Capacity for Intimate Contact Sterns Activities Index
			4. Affiliation
			20. Nurturance
			Myers-Briggs - Extraversion-Introversion
4a. Basic to the ability to relate to others is self-development, self-awareness, and continuous learning	30, 31, 34	XIII	P. O. I. Self-actualizing, self-acceptance, subscale, acceptance of aggression, self-acceptance
			Stern's Activities Index
			1. Abasement-assurance
			29. Supplication-antonomy
4b. As the self-develops there is flexibility and the freedom to respond to individuals and situations	17, 20, 36	XI, XIV	P. O. I. Existentiality-spontaneity Sterns Activities Index
			3. Adaptability-defensiveness
			10. Dominance-tolerance

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APPENDIX H

PROPOSED RNB CURRICULAR PATTERN

Entry point to Professional Curriculum

Diploma School graduate must validate 40 nursing credits by NLN achievement examinations prior to April 15. (See Pre-requisites for program.)	ADN graduate - 90 credits from comm. college which will include 40 nursing credits. Must have completed, in addition, following courses prior to Summer Quarter Entry:	Pre-requisites Chem 101-102 — 10 Eng. Composition — 5 Psychology 100 or 101 — 5 Soc. 110 or Anthro. 202 — 5 Math. 105 or 106 — 5-3 Micro. 301-302 — 5 Electives — 15-17 50	SUMMER QUARTER Cr. Conjoint 317 (Anat/Physiol.) — 6 Statistics — 3-5 Elective — 3-5 12-14
AUTUMN QUARTER Cr.	WINTER QUARTER Cr.	SPRING QUARTER Cr.	Cr.
Conjoint 318 (Anat/Physiol.) — 6 Electives — 8-10 14-16	N350 Nursing Process for RNs — 5 N361 Cultural Variation & Nursing Practice — 3 Elective — 3 11	N354 Upper Division Maternal/Child for RNs — 6 N300 Human Developmnt II or Psych. 306 — 3-5 N405 Care Systems Analysis — 3 12-14	N403 Psychosocial Care in Adaptive and Maladaptive Behaviors II — 3 N407 Psychosocial Lab — 7 Elective — 3 13
Upper Division Physiological Nursing Lab for RNs — 9 N406 Introduction to Research — 3 12	N401 Maximizing Health in the Community — 2 N402 Maximizing Health in the Comm. Lab — 7 Elective — 3 12	N423 Nurse Practitioner in Special Fields — 12 12	TOTAL credits to degree: 192 (Nursing ADN - 40 UW - 65 105)

APPENDIX I

CONTRIBUTIONS OF PROJECT GRANT RELATED TO LEARNING RESOURCES

LEARNING RESOURCES TOTALING $26,000 FUNDED AT FACULTY REQUEST

COURSE NO.	TITLE/DESCRIPTION	COST OF ORIG. COPY	NO. OF COPIES AVAILABLE	COST OF TOTAL COPIES	DISTRIBUTING COMPANY AND DUPLICATE COPY NEGOTIATIONS/IN-HOUSE PRODUCTIONS
N263	"Techniques of Therapeutic Communication," 20 min., 98 slides. "Blocks to Therapeutic Communication," 23 min., 78 slides. Filmstrips with audiocassettes, 1973 (transferred to slide format).	$65.00 65.00	2 2	$97.00 93.00	Concept Media, 1500 Adams Avenue, Costa Mesa, Ca. 92626 - Permission granted to duplicate two copies for School of Nursing in-house use (no fee requested), provided copies are not resold or used for any commercial purpose and not altered in any way except to transfer to slide format.
N263	"Interaction--A Teaching Tape," video tape, 1976 "Is Communication Important?" video cassette, 15 min.		6 3		In-house productions.
N281	"Teaching Breast Self-Examination," video cassette, sound, color, 9 min., 1975. "Breast Examination Procedures," video cassette, sound, color, 9 min., 1974. BETSI breast examination model and five copies of the accompanying student textbook.	167.00 150.00	2 2	199.00 180.00 165.00	OMNI Education, 190 West Main Street, Somerville, New Jersey 08876 - Permission granted to duplicate up to three copies for School of Nursing in-house use (10% royalty fee per copy), provided duplications are not resold, loaned, rented, or used for any other distribution arrangement or commercial purpose; not altered in any way; and include a specified credit line. Permission does not apply to any future revisions of these materials.
N281	"Medical Terminology: Anatomical" "Medical Terminology: Cardiovascular" "Medical Terminology: Respiratory" 12 audio cassettes per set with study and teaching guides.	250.00 250.00 250.00	1 1 1		Au-Vid, Inc., P. O. Box 964, Garden Grove, Ca. 92642
N281	"Intravenous Catheter Care," audio tape and 46 slides. "Urinary Tract Infections: Catheter Care," audio tape and 59 slides.	loan loan	1 1	17.00 20.00	Burroughs Wellcome Co. - Permission granted to duplicate one copy of each series for School of Nursing in-house use (no fee requested), provided copies are not resold or used for any commercial purpose or altered in any way. Permission does not apply to any future revisions of these materials.
N281	"Physical Examination Techniques:" "Overview," 25 slides "Inspection," 71 slides "Palpation and Percussion," 109 slides "Auscultation," 50 slides Slide series with audio cassettes.	(original copies purchased prior to grant)	3 3 3 3	23.25 56.25 86.25 42.00	Itram (no longer in business).
N281	"Physical Diagnosis in Patient Assessment," record and filmstrip.	50.00	1		Able Ventures, Inc., P. O. Box 2407, Sepulveda, Ca. 91343

N281	"Aides in Eating and Drinking," 27 slides with written script.		1		In-house productions.
	"Bandages and Binders," video cassette, 26 min.		2		
	"Bathing the Patient in Bed," video cassette, 24 min.		2		
	"Care of the Black Person's Hair," 63 slides with audio cassette		1		
	"Care of the Hair, Nails and Beard," video cassette, 22 min.		1		
	"Elimination from the Large Bowel," video cassette, 42 min.		2		
	"Handwashing," video cassette, 8 min.		4		
	"How to Massage the Back," video cassette, 8 min.		2		
	"Making the Occupied Bed," video cassette, 11 min.		1		
	"Making the Unoccupied Bed," video cassette, 30 min.		1		
	"Nutrition," video cassette, 4 min.		3		
	"Simulation: Challenge Exam," video cassette, 6 min.		1		
	"Septi-Soft Towel Bath," video cassette, 15 min.		1		
	"Urinary Bladder Elimination," video cassette, 35 min.		2		
N281	Nursing Process Units:				Harper and Row Publishers, 10 East 53rd Street, New York, N. Y. 10022 - Permission granted to duplicate three copies of "Blood Pressure" (royalty fee $63.00 total), provided there were no additions to, deletions or changes in the duplicated materials; the copies carried the exact copyright notice and a credit line; the materials were used solely in the School and not sold, loaned or otherwise disposed of; and the copies were not transmitted by television outside the School. Permission does not apply to any future revisions of the materials produced and is valid only for materials duplicated within one year, i.e., 1975-76.
	"Blood Pressure"	300.00	4	469.30	
	"Observation: Tools and Factors"	225.00	1		
	"Communication"	450.00	1		
	"The Patient as a Source of Information"	250.00	1		
	"Assessment"	450.00	1		
	"Planning"	325.00	1		
	"Implementing"	300.00	1		
	"Evaluating Patient Care"	100.00	1		
	Each module includes slides, an audio tape, video cassette, student response books with attached test answer sheets, and operational procedure sheet, 1973.				
N281 & N302	"Spiritual Needs of the Patient," 1969	60.00	1		Trainex Corporation, P. O. Box 116, Garden Grove, Ca. 92642 - Duplicate copies of these filmstrips were purchased at a reduced rate of $12.00 each. Permission was granted to transfer these materials to slide format.
	"Intake and Output," 1969	60.00	3	108.46	
	"Hospital Fire Safety Procedures," 1969	60.00	1		
	"Shower and Tub Baths," 1969	60.00	3	108.90	
	"Urinary Care," 1974	70.00	3	120.62	
	"Nursing Care During IV Therapy"	60.00	3	108.43	
	Filmstrips with audio cassettes transferred to slide format.				

N281 & N302	"Perineal Care, Female Clean" "Perineal Care, Male Clean" "Bandaging: Toes to Heel" "Binder Application: Scultetus" "Bedmaking: Mitred Corners" "Restraints: Posey Belt" "Irrigation: Clean Vaginal" "Irrigation: Throat" 8mm film loop, color.	(Original copies purchased prior to grant)	4 4 2 2 2 2 1 1	30.00 30.00 10.00 10.00 30.00 10.00	Prentice-Hall, Inc., Englewood Cliffs, New Jersey 07632 - Permission granted to duplicate four copies for School of Nursing in-house use (no fee requested), provided copies are not resold or used for any commercial purpose and not altered in any way.
N302	"Principles of Isolation Techniques," filmstrips with audio cassettes transferred to slide format, 74 color slides, 1975.	70.00	3	132.70	Trainex Corporation, P. O. Box 116, Garden Grove, Ca. 92642 - Duplicate copies of this filmstrip and cassette program were purchased at $22.00 each. Permission was granted to transfer these materials to slide format.
N302	"The Fundamental Principles of Drug Action: A Comparison of Routes of Drug Administration" by Richard Wynn, Ph.D.; audio cassette, 65 slides, audible beep, 16 min.	35.00	3	93.55	The Williams & Wilkins Co., 428 East Preston Street, Baltimore, Maryland 21202 - Permission granted to duplicate up to five copies (royalty fee of one-half the original purchase price) for University of Washington use, provided copies are not resold or used for any commercial purpose and all copyright information appears on the duplications.
N302	"Uretheral Catheterization," video cassette.	loan	3	63.00	Kendall Distributors - Permission granted to duplicate three copies for School of Nursing in-house (no fee requested), provided copies are not resold or used for any commercial purpose or altered in any way. Permission does not apply to any future revisions of these materials.
N302	"Male Catheterization, Part II" "Female Catheterization, Part II" Filmstrips and audio tape cassettes.	50.00 50.00	1 1		Train-Aide, 1015 Grandview Avenue, Glendale, Ca. 91201
N302	"Intramuscular Injection," vide cassette, 5 min. "How to Prepare Medications for Injection," video cassette, 15 min.		3 4		In-house productions.
N303	"Crisis Intervention: Depression and Anxiety," audio cassette with workbook.	19.95	1		Career Aids, Inc., 5024 Lankershim Boulevard, North Hollywood, Ca. 91601
N303	"Love Toad," 16mm film, 2 min. 30 sec. "Quickie," 16mm film, 1 min. 45 sec.	50.00 35.00	1 1		Multimedia Resource Center, 1525 Franklin Street, San Francisco, Ca. 94109
N321-N326	"To Breathe, to Breathe, to Live," 16 mm film, color, sound, 13½ min. "Upper Respiratory Tract," 18 35mm slides, color, complete with script.	99.50 11.95	1 1		Bandera Enterprises, P. O. Box 1107, Studio City, Ca. 91604 - Permission received to duplicate needed copies (no fee requested) provided the duplications are used in-house only and not resold or altered in any way.
N321-N326	"Management of the Artificial Airway" by Leonard Hudson and Martha Tyler, 60 min. audio cassette with workbook and 14 reference slides in a binder. "Introduction to Breath Sounds" by David W. Cugell, M.D., with the assistance of Earl B. Weiss, M.D.; 23 min. cassette with workbook.	18.00 12.00	1 3	28.00	American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068 - Offered a 30% discount on multiple-copy purchases.

N321-N326	"Emergency Department Nursing:" "Initial Observation and Assessment" "Resuscitation and Stabilization" "Management of Shock" "Management of Initial Injuries "Management of Serious Burns" "Management of Respiratory Emergencies" "Management of Cardiovascular Emergencies" "Emergency Management of the Unconscious Patient" 8 audio cassettes with workbooks, 1973.	150.00	1 set		American Journal of Nursing Co., Educational Services Division, 10 Columbus Circle, New York, N. Y. 10019
N321-N326	189 CIBA color slides: numbers 68, 71, 77, 123-134, 203, 213, 215, 216, 218, 219, 229, 234, 236, 237, 239-241, 253-265, 267-272, 275-288, 290-292, 295-299, 313-316, 318, 329, 330, 332, 334, 468, 473, 474, 480, 481, 543, 548, 549, 552, 595-604, 606, 796, 862, 863, 882-885, 1082, 1083, 1190, 1195, 1208, 1209, 1214, 1215, 1220, 1230, 1232, 1241, 1243-1245, 1263, 1268, 1272, 1274, 1282, 1340, 1342, 1346, 1347, 1432, 1437, 1439-1441, 1467-1476, 1479, 1593, 1710, 1712-1714, 1735, 1740, 1781-1797, 1824-1830, 1894-1900, and 1971-1976.	117.00	1 each		Medical Education Division, CIBA Pharmaceutical Co., P. O. Box 195, Summit, New Jersey 07901 - 10% discount on orders for more than 50 slides.
N321-N326	Physical Assessment Lecture Programs: "General Introduction: Overview, History Taking, Four Cardinal Skills of Physical Assessment," 60 min. "Respiratory System," 30 min. "Respiratory System," 60 min. "Cardiovascular System--The Heart," 60 min. "Cardiovascular System--The Heart," 60 min. "Cardiovascular System--The Heart," 60 min. "Cardiovascular System--The Heart," 30 min. "Abdomen," 60 min. "Musculo-Skeletal System," 30 min. "Neurological Examination," 60 min. Accompanying Clinical Examinations: "Respiratory," 20 min. "Cardiovascular," 60 min. "Abdomen," 60 min. "Musculo-Skeletal," 20 min. "Neurological," 60 min. 3/4" video cassettes, color (lecture programs have accompanying materials including: Instructor's Manual, Student's Program Introduction, Individual Study Guide for each lecture, Bibliography of suggested readings, Physical Examination Form, and History Taking Guide).	3,829/set	3	4,603.00	Blue Hill Educational Systems, Inc., P. O. Box 113, Monsey, New York 10952 - Permission granted to duplicate up to three copies (no fee requested) for School of Nursing in-house use provided copies are not resold or used for any other commercial purpose, not altered in any way and include a specified credit line. Permission does not apply to any future revisions of these materials. A 25% discount was allowed for the lecture programs and a 10% discount for the clinical examination series.

N321-N326	"A Child's Cry: A Clue to Diagnosis," record with pictures on jacket--duplicate copy transferred to slide format with audio cassette, 1971.	no charge	2	10.00	Pfizer Laboratories Division, Medical Department, 235 East 42nd Street, New York, N. Y. 10017 - Permission received to transfer format and make additional copies for use in revised program provided specified credit was given and the duplications were not sold or distributed.
N321-N326	"Care of the Pediatric Patient: Feeding Patterns of Infants and Toddlers," 3/4" video cassette, color, 31 min., accompanying study guides available. "Care of the Pediatric Patient: Pre- and Post-operative Care of a Pediatric Patient," 3/4" video cassette, color, 29 min., accompanying study guides available.	150.00 150.00	3 3	222.00 222.00	Directions for Education in Nursing via Technology, Wayne State University, College of Lifelong Learning, Detroit, Michigan 48202 - Permission granted to duplicate four copies (royalty fee of 10% per copy) for School of Nursing in-house use provided copies are not resold or used for any commercial purpose, not altered in any way and include a specified credit line. Permission does not apply to any future revisions of these materials.
N321-N326	Copies of the study guides for the above two DENT lessons.		100	242.00	
N321-N326	"Play in the Hospital," 16mm film, color, sound, 50 min.	275.00	1		Campus Film Distributors, 20 East 46th Street, New York, N. Y. 10007 - Company could not grant duplication permission; offered a 10% discount on purchases of four copies.
N321-N326	"Kurt: A Retarded Child in the Family," 16mm film, black & white, 12 min.	120.00	1		Polymorph Films, Inc., 331 Newbury Street, Boston, Mass. 02115 - Permission received to duplicate three copies ($12.00 fee per copy) for School of Nursing in-house use provided copies are not resold or used for any other commercial purpose, not altered in any way, and include a specified credit line. Permission does not apply to any future revisions of these materials.
N321-N326	"The Day Grandpa Died," 16mm color film, 11½ min.	150.00	1		B. F. A. Educational Media, 2211 Michigan Avenue, Santa Monica, Ca. 90404 - Duplication rights granted for a royalty fee of 15% of the purchase price for each copy; would cover unlimited usage of each copy for a period of one year.
N321-N326	"Nursing Management of Children with Cancer;" loan copy was a 16mm film; duplicated three copies onto 3/4" video cassette--one color, two black & white; 22 min. "Acute Leukemia;" loan copy was a 16mm film; duplicated one copy onto 3/4" video cassette, color, 20 min.	loan loan	3 1	63.00 17.00	American Cancer Society, 323 First Avenue West, Seattle, Wa. 98119 - Permission granted to duplicate loan copy at no charge provided a report was made to their office at least four times each year regarding type of audience viewing the tapes, dates and number of viewers for each showing, and comments or questions from the audience which might be helpful.
N321-N326	"Heart Sounds: What They Teach Us," 12 audio cassettes with workbook.	275.00	1		Thiokol/Sumetrics Corporation, 6374 Arizona Circle, Los Angeles, Ca. 90045 - Permission to duplicate could not be granted. Policy is to supply replacement tapes at $35.00 each.
N321-N326	"Auscultatory Analysis and Differentiation of Cardiac Valvular Murmurs," audio cassette and workbook, 1975.	no charge	1		Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486
N321-N326	"The Cerebral Arteriogram" "The Electroencephalogram "The Pneumoencephalogram" Each unit contains a 16mm silent color film, slides, audio cassettes, and workbooks.	110.00 60.00 110.00	1 1 1		The Williams & Wilkins Co., 428 East Preston Street, Baltimore, Maryland 21202

N321-N326	Clinical Practice in Cardiology: "Acute Myocardial Infarction," 20 slides "Angina," 14 slides "Cardiac Emergencies in Infants & Children," 24 slides "Management of Shock," 18 slides "Modern Pharmacological Management of Systematic Hypertension," 11slides "Problem Oriented Systems: An Introduction," 19 slides "The Stroke Syndrome: Clinical and Diagnostic Aspects," 29 slides "Temporary & Chronic Ventricular Pacing Techniques," 12 slides 8 audio cassettes with slides and work-books.	45.00	1 set		American Heart Association, 44 East 23rd Street, New York, N. Y. 10010
N321-N326	"Evaluation of Heart Sounds," presented by Gaylene Altman Dec., 1975; 3/4" video cassette. "General Physical Assessment" (emphasis on abdominal) presented by Suzanne Champoux October, 1975; 3/4" video cassette. "Neurological Assessment" presented by Pam Mitchell November, 1975; 3/4" video cassette. "Assessment of Respiratory Function" (anatomy of the lungs, interpretation of breat\ sounds, blood gas abnormalities, ventilation perfusion problems, and nursing standards of respiratory care), presented by Molly Tyler Autumn Quarter, 1975; 3/4" video cassette. "Insulin Injection and Urine Testing," Melanie Fischell, video cassette,1975. "The Infant Bath," Linda Wegsteen, video cassette, 1975. "Play Therapy for Child Psy[illegible]logy Content," Mary Siemon, v[illegible] cassette. "Cardiac Pulmonary Resus[illegible]itation of the Infant and Adult," Cathy Clapp and Ruth McDougall, video cassette, 1975.		1 1 1 1 2 2 1 1		In-house productions.
N321-N326	Equipment for check-out by students and faculty (many of these items were received at no charge): Gastro-intestinal: Stoma measuring guides; various disposable colostomy bags; ileostomy bag; healskin washer; Karaya seal; Reliaseal; ventral lenis tube; stomahesive; disposable barium enema unit; Devol colostomy irrigating appliance set; disposable sump pump; sump pump for nasogastric suction 43"; leaven stomach tubes, fr. #16, 50"; and colostomy irrigation appliance.			120.00	

N321-N326 (cont.)	Respiratory: Fr. #14 suction catheters, 22"; trachael tube #7; trachael tube #8, aerosol T adapter; tracheostomy care tray; suction trays, tracheostomy cleaning trays, disposable suction kits; trach-eostomy suction catheter; suction cath and glove kit; and tracheostomy collar. Venipuncture: venoset microdrips; twin site venosets; blood pump set; 18 g. 2" and 20 g. 1¼" IV catheter placement units; flask chambers; venotube--20" for syringe attachment; 16 g. 2", 18 g. 2", and 20 g. 1¼" angiocaths; 30" IV extension set; 3-way stopcock; 16 g. 2", 18 g. 2" and 20 g. 1¼" Quik-cath IV placement units with plugs; 25 g. 5/8" and 26 g. ½" insu-lin syringes U100; and venipuncture training kit. Miscellaneous: catheters, drapes, specimen (sterile) tube, knee splint, ultra care sheeting, lumbar puncture trays, manometers, spinal needle (extra), and toys for a play suitcase.				
N321-N326 &N401, N402	"Pediatric Communicable Diseases" by Karl Stillwater, M.D. - 33 slides with booklet.	20.00	1		Medical Film Slide Division, Micro X-Ray Recorder, Inc., 3755 West Lawrence, Chigago, Illinois 60625 - Permission granted to duplicate four copies (no fee requested) provided they were used in the School program only and not distributed, and the author and company name appear on the copies.
N400	"The Child (Barnet)," 16mm film, color, 48 min. (UW Audiovisual Services funded half the cost).	675.00	1		International Film Bureau, Inc., 332 South Michigan Avenue, Chicago, Illinois 60604 - Duplication rights granted (royalty fee asked was 10% of the list price of the film for a five-year period) provided the duplications were used only on video players within the facilities and only in the program specified.
N400	"Breast Self-Examination: A Plan for Survival," 16mm film (duplication made on 3/4" video cassette format) color, sound, 10 min., 1974.	100.00	2	125.00	Maternity-Infant Care, Family Planning Project, 377 Broadway, New York York, N. Y. 10013 - Permission received to duplicate up to three copies on video cassette format (royalty fee of 10% per copy) per-mission limited to School of Nursing in-house use provided copies are not resold or used for any commercial purpose, not altered in any way, and include a specified credit line. Permission does not apply to any future revisions of these materials.
N401	"Epidemiology--What's That?" 16mm film, black and white, sound, 30 min., 1968.	92.00	1		Great Plains National Instructional TV Library, Box 80669, Lincoln, Nebraska 68501
N401	"Knowing Your Neighborhood," 16mm film, 20 min., color, 1968.	100.00	1		Sleeping Giant Films Co., 3019 Dixwell Avenue, Hamden, Conn. 06518
N401	"A Descriptive Approach to a Community," two 3/4" video cassettes.	$5-rental	1	47.00	Western Interstate Commission for Higher Education, P. O. Drawer "P," Boulder, Colorado 80302 - Permission granted to duplicate loan copy (also, to attempt to block-out some of the "noise" on the original).
N401 & N402	"Occupational Health Nursing in the Department of Army," 3/4" video cassette, 24:57 min., color, 1974.	loan	1	21.00	Health Sciences Media Division, Academy of Health Sciences, U. S. Army, Fort Sam Houston, Texas 78234 - Video cassette provided onto which distributor duplicated a copy of their master tape at no charge.

N401 & N402	Baby scale; simulation games: "Life Career," "Generation Gap," "Economic System," "Consumer," and "Lie, Steal, and Cheat;" Denver Developmental, Articulation, and Eye Screening test materials; scripts from "Plays for Living;" two copies of the "Public Health Science Teacher's Guide;" "Guide to Meeting Citizen Participation Requirements for Community Development;" "Guide to Preparing Environmental Assessments for Community Development;" tuning fork, 2 reflex hammers, 6 rectal thermometers, 100 disposable tape measures, and 2 finger forceps.			503.00	
N423	"The Brazelton Neonatal Assessment Scale:" "An Introduction," 20 min., with guide "Variations in Normal Behavior" "Self-Scoring Examination," 23 min., with guide. Purchased in 16mm film format (duplication made on 3/4" video cassette format), black and white, 1975. Set also included a copy of Dr. Brazelton's monograph , A Neonatal Assessment Scale.	110.00 110.00 120.00	3 3 3	144.00 144.00 162.00	Education Development Center, 39 Chapel Street, Newton, Mass. 02160 - Permission granted to duplicate up to three copies of the films for School of Nursing in-house use (no fee requested) provided copies are not resold, used for any other commercial purpose, nor altered in any way, and include specified credit line. Permission does not apply to any future revisions of these materials.
N423	"Introduction to Cardiac Arrhythmia Interpretation:" I. Functional Anatomy of the Heart II. Electrical and Chemical Phenomena of the Heart III. Analysis of the Electrocardiogram IV. Arrhythmias Originating from the Sinus Node V. Arrhythmias Originating in the Atria VI. Arrhythmias Originating from the A-V Node or A-V Junction VII. Arrhythmias Originating in the Ventricles. Series of 4 audio cassettes with 184 accompanying color slides, 1972.	26.00	1 set		Washington State Heart Assn., 333 First Avenue West, Seattle, Wa. 98119
N423	"Part I: Common Electrocardiographic Abnormalities" "Part II: Common Cardiac Arrhymias" "Part III: Complex Cardiac Arrhythmias" "Part IV: Digitalis-Induced Arrhythmias" "Part V: Cardiac Arrhythmias--Differential Diagnosis" "The Battered Child Syndrome" Slides with viewers and booklets (100 slides per set).	75.00 75.00 75.00 75.00 75.00 75.00	1 1 1 1 1 1		Medcom, Inc., 2 Hammerskjöld Plaza, New York, New York 10017 - Company did not grant duplication permission--offered a 10% discount on additional copies purchased--indicated they would replace damaged slides for $1.35 each.
N423	22 replacement slides for the series, "Common Electrocardiographic Abnormalities"	30.00			

General	"Factors for Optimal Learning" "Instructional Module Design" "Specifying Learning Objectives" "How Do you Feel about the Learning Interaction?" "Utilizing Instructional Alternatives" "How to Measure Achievement" A three-tape audio cassette series, plus an album, containing lectures and discussions by Richard W. Burns and Joe Lars Klingstedt.	15.95	1 set		Educational Technology Publications, 140 Sylvan Avenue, Englewood Cliffs, New Jersey 07632
	"Behavioral Objectives and Competency Based Education" by Richard W. Burns	6.00	1		
	"New Media for Instruction in Nursing and the Health Fields" by Nettie Hutchins	5.00	1		
	"Instructional Objectives in the Affective Domain" by Mary B. Harbeck	4.50	1		
	"Simulation and Gaming in Curriculum Development" by Clark C. Abt	7.50	1		
	"Issues in Programmed Instruction" by Robert E. Silverman	7.50	1		
	"The Systems Approach in the Solution of Problems in Education" by Robert and Betty Corrigan Audio cassettes.	7.50	1		
General	"Psychobiology, Learning and Individual Differences" by Frank H. Farley "Assessment of Educational Effects" by Scriven, Cooley, Becker, and Lazarsfeld. "Methodology of Evaluation" by Walker, Worthen, Brickell, Scriven, Stufflebeam "Cognitive Style and the Teaching/Learning Process" by Witkin, Moore and McDonald. "Expanding Technology of Educational Evaluation" by Jaeger, Law, Popham, Stufflebeam and Tyler. Audio cassettes.	37.50	1 set		American Educational Research Assn., 1126 16th Street Northwest, Washington, D. C. 20036
	"Basic Techniques for Designing Evaluation Studies" by Peter W. Airasian	6.75	1		
	"Conceptualization of Evaluation" by Daniel Stufflebeam	6.76	1		
	"Defining Objectives for Six Varieties of Learning" by Robert M. Gagne	6.75	1		
	"Evaluation Skills" by Michael Scriven	6.75	1		
	"Formative Evaluation of Instruction" by Eva L. Baker	6.75	1		
	"An Introduction to Matrix Sampling" by Kan Sirotnik	6.75	1		
	"Non-Sampling Errors in Surveys and Experiments" by Donald L. Meyer	6.75	1		
	"Multiple Regression Analysis" by Fred N. Kerlinger	6.75	1		

General (cont.)	"Recent Trends and Developments in Non-parametric Statistics" by Leonard A. Marascuilo "Statistical Interactions: Their Nature and Importance" by Jason Millman Audio cassettes.	6.75 6.75	1 1		American Educational Research Assn. (cont.)
General	"Alternative Futures for Education and Learning Symposium '73": "Alternative Futures for Education and Learning: A Project for the Future" by John A. Dow "A Sociologist's View of the Future" by Daniel Bell "An Economist's View of the Future" by Kenneth E. Boulding "The Schools of the Future: Adaptive Environment for Learning" by Robert Glaser "A Political Scientist's View of the Future" by Harold D. Lasswell "The Schools of the Future: A New Conception of Curriculum" by Louis J. Rubin "Social Decisions and Educational Policy" by Harold G. Shane "The Schools of the Future: Technological Possibilities" by Patrick Suppes "The Schools of the Future: Needed Research and Development" by Ralph W. Tyler Audio cassettes.	6.00/tape	1 set	40.80	Research for Better Schools, Inc., Suite 1700, 1700 Market Street, Philadelphia, Pa. 19103 - 15% discount on purchase of entire set.
General	"Accountability--A Challenge for Educators" (2-tape session) "Quality Assurance--A Joint Venture" (2-tape session) "Project Update--Innovations in Education" "The Effective Use of Instructional Media" "Competency-Based Instructional Programs for Allied Health Personnel" Audio cassette recordings of the National League for Nursing's 12th Biennial Convention sessions. "The Nursing Audit," two audio cassettes and one workbook.	32.25 20.00	1 set 1 set		National League for Nursing, 10 Columbus Circle, New York, N. Y. 10019
General	"ERIC--A Series," 25 frame, 35mm filmstrip, color, with record, 1970.	5.00	1		Information Branch, National Audiovisual Center (GSA), Washington, D. C. 20409
General	"Let Us Show You Where to Find It," 58 slides and audio cassette.	30.00	1 set		Cumulative Index to Nursing Literature, P. O. Box 871, Glendale, Ca. 91206
General	"How to Operate the Portapak," video cassette, 30 min.	125.00	1		Smith-Hattingly Productions, Ltd., 310 South Fairfax Street, Alexandria, Va. 22314

General	Ten video cassettes on fluids and electrolytes presented by Sue Donaldson Autumn Quarter, 1975: "Body Water and Electrolyte Distribution" "Acid/Base Lecture" "Acid/Base Distribution in Body Hyper/Hypo Kalemia "Nomogram Explanation" "Non Carbonic Acid Deficit" "Saline & Water Imbalances and Body Water Distribution" "Disturbances of Osmolarity" "Disturbances of Extracellular Volume" "Urine Concentration & Dilution" "Saline Depletion/Excess"		1 set		In-house productions.
	"Rural Nursing Needs," two color video cassettes made from a satellite broadcast with nurses practicing at Mid-Valley Hospital in Omak, Washington on February 4, 1975.		1 set		
	"Introduction to Criterion Testing," "Test Item Writing," "Summary and Critique," and "Item Analysis;" four audio cassettes made at the National Medical Audiovisual Center's Workshop on Criterion Test Development held February 6-7, 1975 (with accompanying notebook).		1 set		
	"Learning Modular Approach," "Planning a Mediated Learning Presentation," and "Copyright Laws;" three audio cassettes made at the Family & Community Workshop on Individualized Instruction held June 10, 1975 with accompanying Guidebook for the Design of Instructional Systems for Individualized Learning by Allison McPherson, University of Washington Office of Research in Medical Education, 1975.		1 set		
	"Introduction and Autoturial Methods as One Mode of Individualized Instruction," and "Media Presentation Discussion;" three audio cassettes made at the Junior Faculty (Med.-Surg.-Peds.) Workshop on Individualized Instruction held June 12, 1975 with accompanying Guidebook for the Design of Instructional Systems for Individualized Learning by Allison McPherson, University of Washington Office of Research in Medical Education, 1975.		1 set		

General (cont.)	"Theimer on Evaluation Inservice Programs," "Cullen on Patient Care Appraisal," Worthen and Sanders on Educational Evaluation," and "W. Hathaway and V. Doherty on Goal-Based System for Learning, Guides K-12;" two audio cassettes made at the Pacific Northwest Research and Evaluation Conference held in May, 1973.		1 set		In-house productions (cont.)
	"Pass/Fail/Honors Grading Option for Clinical Courses," audio cassette made of the April 25, 1975 Panel Presentation arranged by the Committee on Educational Effectiveness.		2		
	"Nursing Audit Workshop," five audio cassettes made of the workshop held in Seattle in December, 1973 by the Joint Commission of Accreditation for Hospitals (with a copy of the agenda for the workshop).		1 set		
	"NLN Regional Council of Associate Degree Programs," audio cassette made of presentation by Carrie Lenberg on April 17, 1975.		1		
	"Patterns of Assessment of Experiential Learning" by Dr. John Valley; "Summary of Group Discussion--External Degree Programs" by Dr. John Valley; and "Current Practices in Various Programs": ADN--Julie Sykes, Los Angeles; ADN--Lana Riddle, Brigham Young, Utah; Bacc. Program--Margaret Adamson; Upper Division Program--Vivian Malmstrom, California; and Master's Program--Dr. Marie Brown, Denver. Four audio cassettes made at the WICHEN Workshop on Innovations in Nursing Curricula held 1/12-13/76 in San Diego.		1 set		
	"Objectives," audio cassette made of a dialogue with Dr. Vivian C. Wolf at a Family & Community Nursing Curriculum Workshop held May 16, 1975.		2		

General	Blank audio and video tapes, reel-to-reel and cassette format, for faculty/student use.			6,500.00	
	134 carrousel slide trays for use with commercially-produced purchases and in-house productions.			419.00	
	Supplies for preparing overhead transparencies and latent image examinations.			693.00	
	Ektanar 3.5 zoom lens for slide projector, 400 glassless gepe mounts (18x24 mm), 7 Kodak single-slide viewers, 60 size "C" batteries for use with tape recorders, 25 notebook-pages for slides, supplies to build a slide viewer, 2 boxes of printer paper, 4 DEC tapes, 9 rolles of ECG paper, and 3 rolls of Linagraph direct print paper.			309.00	

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98105

May 1, 1975

School of Nursing
Mail Stop SM-27

Bandera Enterprises
P. O. Box 1107
Studio City, CA 91604

Dear Sirs:

We are currently considering the purchase of one of your films entitled "TO BREATHE, TO BREATHE, TO LIVE." For our needs, we would find the video tape cartridge format to be the most convenient.

In the event we purchase this film, it would be used in our baccalaureate nursing program. Because this film would be viewed on an individual basis by 80 students in the program in a two-week period, faculty have requested that at least four copies of the item be made available for student check-out. Because we do not have funds available for the purchase of additional sets of this material, we would like to know if permission would be granted to duplicate the needed copies. This, of course, would only be done with the understanding that the copies would be used in-house only and would not be for resale or altered in any way.

We also feel that with such extensive use of this item, we run the risk of damaging or loosing the original copy. This is another reason we feel additional copies would be desirable.

Because our budget period will be ending May 31, 1975, we hope a decision can be made regarding this matter soon. We look forward to hearing from you at your earliest convenience.

Sincerely,

Ursel Krumme

Ursel Krumme, Asst. Director
Bacc. Nursing Curriculum Revision Grant

UK/cm

APPLICATION FOR PERMISSION TO DUPLICATE MATERIALS

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Seattle, Washington 98195

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Signature of Applicant:

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Date:_____

Company:_____

By:_____

Date:_____

INSTRUCTIONAL MEDIA EVALUATION FORM

Name: _____

Department: _____

Date: _____

Title & Distributing Company _____

Cost of Preview: _____ Length: _____ Cost to Purchase: _____

Format Available: _____

I. COURSE RELEVANCE

	highly relevant	moderately relevant	slightly relevant	not relevant
A. For what course are you evaluating these media? _____				
B. Is this material applicable for the above course? _____				
C. For what other courses might these media be relevant: _____				
_____				
_____				

II. MEDIA EVALUATION

	YES	NO	COMMENTS:
A. Are these media up-to-date?	☐	☐	_____
B. At what level are these media - Sophomore	☐	☐	_____
Junior	☐	☐	_____
Senior	☐	☐	_____
C. Would you use these media for your course:			
1. for general use in the classroom	☐	☐	_____
2. required individual checkout	☐	☐	_____
3. supplemental use for individual study	☐	☐	_____
D. Are these media accurate?	☐	☐	

State inaccuracies _____

_____

E. Other faculty who might be interested in using these media: _____

_____

F. Other Evaluative Comments: (general reaction; i.e., rate of presentation, held interest, length of presentation, etc.)

G. Comments on Technical Quality: _____

H. Would you recommend purchasing these materials for the School of Nursing?

YES ☐ NO ☐ COMMENT: _____

III. COMMENTS BY OFFICE OF AUDIOVISUAL MEDIA:

GA:cm
11/75

APPENDIX J

AN ANALYSIS OF SCHOOL OF NURSING PILOSOPHY, TERMINAL PROGRAM OBJECTIVES AND THE EMERGING ROLE OF THE NURSE

Our philosophy illustrates we see emerging roles as based on:

Areas of Emerging Role:	Examples of Philosophy Statements Illustrating These Areas:
1. A broad concept of health.	6, 8, 10, 11, 12, 23, 25.
2. A broad concept of nursing.	18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
3. Core content, discipline, and research-based approach.	18, 19, 40.
4. Informed judgements and critical thinking.	34, 35, 36, 40.
5. Incorporates beginning specialization.	42.
6. Ability to meet change.	11, 13, 15, 16, 17, 20.
7. Collaborative.	14, 21.
8. Concern for the individual and his rights.	5, 6, 7, 9, 10, 11, 12, 22, 23, 24, 25, 26.

The curriculum reflects the philosophy and purposes of the school and implements the objectives of the program. We would cite the following:

Our Philosophy Emphasizes:	Our Terminal Objectives Emphasize:
1. A broad concept of health.	Health care in terminal objectives I, II, III, IV, V, VI, VII, VIII, IX, X, XII, XV, XVI.
2. A broad concept of nursing.	This broad concept of nursing is found in terminal objectives I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII, XV, XVI.
3. Core content, discipline, and research-based approach.	These are implied in our content objectives as seen by our definition of terms in terminal objectives and the course outlines. Objective VIII speaks directly to our research thrust.
4. Informed judgments and critical thinking.	This is stated or implied in the terminal objectives I, VI, XI, and XIV.
5. Incorporates beginning specialization.	We have a quarter on beginning specialization and we feel it fits under all of our broader objectives.
6. Ability to meet change.	This is seen directly in XVI, XIII, XIV, XV, and indirectly in most of our objectives.
7. Collaboration.	Emphasized in objectives I, II, IV, VI, VII, XI.
8. Concern for the individual and his rights.	Emphasized in objectives I, VII, XII, and XV.
9. Development of individuals of knowledgeable persons contributing to the society.	All objectives imply this. It is directly addressed in objectives, IX, XIII, and XIV.

Prepared by Vivian Wolf

APPENDIX K

FACULTY EVALUATION OF ACHIEVEMENT TESTS, 1973-1976

PROJECT YEAR	TESTS REVIEWED	SYNOPSIS OF FACULTY'S EVALUATION
1973-74	National League for Nursing Achievement Tests: 1. Psychiatric Nursing, Form 972, 1972 2. Community Health Nursing, Form 173, 1972 3. Drug Administration; Epidemiology; Fluid Balance Techniques and Approaches, Form 1073 4. Observations and Judgment: Natural Science Applications, Form 1173 5. Psychosocial, Ethical-Legal; Nutrition, Form 1273	Reviewers of tests 1 and 2 felt neither would be useful as challenge examinations for the old or new curriculum or acceptable as general achievement tests to provide comparative data. They felt there were major content areas which were omitted. Reviewers of tests 3, 4, and 5 felt there were incomplete, weak, or totally neglected areas of content essential for students both in the old and new curriculum. They did not recommend the use of these tests as challenge examinations.
1974-75	Psychological Corporation Nurse Achievement Tests: 1. Medical Nursing, Form 66, 1968 2. Surgical Nursing, Form 74, 1968 3. Psychology and Sociology, Form 33, 1968 4. Obstetrical Nursing, Form 29, 1968 5. Pediatric Nursing, Form 70, 1968 6. Nutrition and Diet Therapy, Form 28, 1968 7. Anatomy and Physiology, Form 21, 1968 8. Pharmacology, Form 71, 1968 9. Microbiology, Form 27, 1968 10. Communicable Diseases, 1961	Reviewers of the Psychological Corporation tests felt that the items were in many instances out of date and inappropriate and should not be used with students either as achievement tests or challenge examinations.
	National League for Nursing Achievement Tests:	Criteria for Judging: What credit could be granted for the revised course(s) by taking the achievement tests?
	A. Basics in Nursing	
	1. Drug Administration: Epidemiology: Fluid Balance Techniques & Approaches, Form 1073, 1973.	There was faculty consensus that two credits could be granted for Nursing Process.
	2. Observations and Judgment: Natural Science Applications, Form 1173, 1973.	All faculty reviewers recommended that a minimum of two credits could be granted for Nursing Process.
	3. Psychosocial; Ethical-Legal; Nutrition, Form 1273, 1973.	It was felt one credit could be granted for N303.
	B. Medical Surgical Nursing	
	1. NLN Basic Course-End Achievement Test, Form 862, 1962 (administered to students in old curriculum).	The criteria for judging this examination were completely dismissed by faculty because of the outdatedness of this test.
	2. NLN Comprehensive Achievement Test, Part I, Three in One (Orthopedic, Neurological-Neurosurgical, and Eye, Ear, Nose, and Throat Nursing), Form 262, 1961.	Reviewers felt no credit allocation could be made unless this examination was updated.
	3. NLN Comprehensive Achievement Test, Part II, Two in One, Form 962, 1962.	The test items were rejected for their outdatedness and no credit allocation was felt could be made.
	4. NLN Comprehensive Achievement Test--Baccalaureate Programs Only, Form 967, 1967.	This examination was not recommended for granting of any credit because it did not reflect current knowledge and nursing practice.
	C. Maternal-Child Nursing	
	1. NLN Achievement Test in Nursing of Children, Form 368, 1968.	A maximum of 4 credits was felt could be granted for "Nursing Care of Ill Adults and Children."
	2. NLN Achievement Test in Obstetric Nursing, 468, 1968.	A maximum of 2 credits was felt could be granted for N400.
	3. NLN Achievement Test in Maternity and Child Nursing, Form 467, 1967.	A maximum of 2 credits was felt could be granted for the OB course content.
	4. NLN Comprehensive Achievement Test in Maternal-Child Nursing--Baccalaureate Programs Only, Form 964, 1964. (Administered to students in old curriculum.)	Faculty reviewers of this examination rejected its use for granting any credit when the instructional content for pediatric nursing was just evolving for the revised courses.

PROJECT YEAR	TESTS REVIEWED	SYNOPSIS OF FACULTY'S EVALUATION
1974-75 continued	D. Psychiatric Nursing	
	1. NLN Achievement Test in Psychiatric Nursing: "Theory and Practice in Psychiatric Nursing," Form 473, 1973.	1 credit for N403 and 2 credits for N407 could be granted.
	2. NLN Baccalaureate-Level Achievement Test in Psychiatric Nursing, Form 972, 1972.	1 credit was felt could be granted for N403.
[illegible]-76	National League for Nursing Achievement Tests:	Criteria for Judging: Which exam(s) could be used to validate lower division nursing credit for the entering RNB diploma student and what cut-off point could be accepted as passing the test(s)?
	A. Basics in Nursing	
	1. DEFT: Drug Administration; Epidemiology; Fluid Balance; Techniques & Approaches; (27), Form 1073, 1973. 2. ON: Observations & Judgment; Natural Science Application; (28), Form 1173, 1973. 3. PEN: Psychosocial; Ethical; Nutrition; (29), Form 1273, 1973.	All four reviewers from Nursing Process felt Form 1073 could be used. Faculty from the Departments of Family & Community Nursing and Comparative Nursing Care Systems voted to accept as passing a raw score of 54.7, 54.1, and 48.2 in the three sections of the examinations respectively.
	B. "Nursing Care of Adults with Pathophysiological Disturbances"	
	1. Basic, (P-16), Part I, Form 875, 1975. 2. Intermediate, (X-24), Part II, Form 975, 1975. 3. Specialization, (Z-26), Part III, Form 1175, 1975.	Five out of six faculty reviewers felt that Forms 875 and 975 could be used. Physiological Nursing faculty voted to grant credit if more than half of the questions on each examination (58 respectively) were answered correctly.
	C. Maternal-Child Nursing	
	1. Comprehensive Achievement Test in Maternity and Child Nursing, (U21), Form 467, 1967. 2. Comprehensive Achievement Test in Maternal-Child Nursing (Baccalaureate Programs Only), (G7), Form 964, 1964.	Four out of five faculty reviewers felt that Form 467 could be used. Faculty from Maternal and Child Nursing voted to accept a score of 71.76 or better as passing.
	D. Psychiatric Nursing	
	1. Basics in Nursing--PEN: Psychosocial; Ethical-Legal; Nutrition; (29), Form 1273, 1973. 2. Theory and Practice in Psychiatric Nursing, (L12), Form 473, 1973. 3. Baccalaureate-Level Achievement Test in Psychiatric Nursing, (O15), Form 972, 1972.	Faculty from Psychosocial Nursing voted to use Form 1273 as the examination for validating psychosocial knowledge. In order to receive credit the candidate must be in the 50th percentile of ADN scores or above.

APPENDIX L

SAMPLE OF STUDENT CLINICAL EVALUATION FORM

Clinical Evaluation Tool for Pediatric Component of N322

In applying the nursing process the student will:

I. Evaluate effectiveness of the child's adaptation to internal and external environmental changes by assessing developmental manifestations.

A. Classifies level of development as within the range of normal or abnormal

1. physical
2. cognitive
3. emotional
4. social

B. Assesses the environmental influences which affect growth and development

1. Assesses the child's reaction to the health care setting.
2. Employs theories of effects of hospitalization.
   a. Anticipates child's behavior according to his reaction to hospitalization.
   b. Plans nursing care based on anticipated behavior.
   c. Modifies nursing care based on behavioral assessment.

C. Develops nursing care plan based on child's stage of development and reaction to the health care setting.

D. Implement indicated nursing actions

E. Evaluates effectiveness of nursing actions

F. Employs safety precautions appropriate to child's developmental level, i.e. side rails, restraints, play equipment, etc.

II. Appreciate the impact of hospitalization and illness on the child and his family.

A. Appreciates the role of parents in the child's reactions to hospitalization.

1. Recognizes the wide range of parental responses to involvement in care of their child.
2. Plans nursing care by utilizing the above knowledge of parent responses

B. Demonstrates sensitivity to patient's and family's values, feeling and behavior.

C. Identifies social, cultural and educational variables in determining nursing approaches.

D. Selects nursing approaches which demonstrate an appreciation of family interrelationships.

1. Identifies the relationships within the family.
2. Incorporates knowledge of the family relationships in providing nursing care.

III. Apply knowledge of nursing and medical therapies directed toward prevention, correction, or control of pathological changes in the individual.

A. Compare the physiologic responses to pathologic conditions occurring in the child and the adult.

B. Identifies patient problems on the basis of observations and knowledge of:

1. pathophysiology
2. lab findings

C. States why specific treatments are ordered and the results to be expected.

D. Substantiates specific nursing approaches with scientific principles or rationale.

E. Incorporates assistance and/or resources in solving nursing problems, i.e. instructor, staff, physicians, care and varied resources.

F. Applies knowledge of pharmacology and human physiology in administering medication to the pediatric patient.

G. Sets priorities of nursing care.

H. Executes plan of care, reflecting priorities.

I. Modifies nursing care in terms of the changing needs of the patient.

1. Recognizes change in patient status.
2. Implements change in care.
3. Evaluates the effect of revised nursing action.

J. Performs technical procedures (psychomotor skills) safely and with increasing dexterity.

IV. Apply effective communication skills in meeting the needs of the child and the family.

A. Applies principles of communication.

1. To the pediatric patient.
2. To the family.

B. Appreciates that communication with the child and parents will be affected by nurse's own feelings, behavior, and philosophy.	
1. Identifies own feelings and their influence on the child and his family.	
2. Identifies own behavior and its influence on the child and his family.	
C. Identifies play as a communication process.	
1. Identifies elements of play behavior.	
2. Identifies types of play.	
3. Identifies developmental stages of play.	
D. Analyzes own communication skills.	
E. Modifies own behavior in accord with family needs.	
F. Records information for use by other health personnel, e.g. problem oriented charting, Kardex.	
V. Implement teaching to improve nursing and health care of the child and his family.	
A. Identifies learning needs of the:	
1. Child	
2. His family	
B. Plans teaching approach based on:	
1. Receptivity and/or readiness to learn.	
2. Timing.	
3. Motivation.	
4. Learner's level of knowledge.	
C. Implements a plan for teaching	
1. Promotes an environment conducive to learning.	
2. Incorporates available teaching resources.	
3. Encourages learner participation in teaching plan.	
4. Employs measures for validating teaching effectiveness.	
D. Provides anticipatory guidance based on theoretical background.	
VI. Assume responsibility for personal, professional, and educational development.	
A. Recognizes own strengths and limitations and sets learning goals accordingly.	
B. Organizes time realistically.	
1. Present on time for clinical experiences, for clinical conferences and in submitting written work.	
2. Organizes time appropriately and reorganizes time in response to unexpected occurances.	
C. Seeks learning experiences which increase own knowledge and nursing skill.	
D. Function collaboratively to accomplish health care goals.	
E. Accepts responsibility for increasing the professional growth of both self and fellow students through the mutual sharing of new knowledge and nursing experiences.	

CLINICAL EXPERIENCES SUMMARY:

OBJECTIVES			
I			
II			
III			
IV			
V			
VI			
N322	NO CREDIT	CREDIT	

Date: _____

Instructor: _____

Student: _____

APPENDIX M

UNIVERSITY OF WASHINGTON SCHOOL OF NURSING STUDENT RECORD EVALUATION

Initial Collector_____ Date_____ RESEARCH ID_____

Final Collector_____ Date_____

RESEARCH I.D. _____ 1-5

*** 6

1. U. W. I.D. number 1._____ 7-13

2. Resident Status 2._____ 14
   1 = yes, 2 = no

3. Student Status 3._____ 15
   1 = full-time
   2 = part-time

4. Sex 4._____ 16
   1 = male, 2 = female

5. Marital Status (Soph.) 5._____ 17
   1 = single
   2 = married
   3 = separated
   4 = divorced
   5 = widowed

6. Dominant Ethnic Origin 6._____ 18
   1 = Caucasian
   2 = Black (AfroAmerican)
   3 = Asian American (Oriental)
   4 = American Indian (Native American)
   5 = Chicano (Mexican American)
   8 = Other, U. S.
   9 = Other, non U. S.

7. Religious Preference 7._____ 19
   1 = Protestant
   2 = Catholic
   3 = Jewish
   4 = none
   5 = other

8. Date of Birth 8._____ 20-21
   year, last two digits

HIGH SCHOOL EXPERIENCE

9. High School 9._____ 22-23

_____
City State

Code State			
Washington	=01	Nevada	=09
Alaska	=02	New Mexico	=10
Arizona	=03	Oregon	=11
California	=04	Utah	=12
Colorado	=05	Wyoming	=13
Hawaii	=06	Other U. S.	=14
Idaho	=07	Other non U.S.	=15
Montana	=08		

HIGH SCHOOL GPA'S

10. Rank in graduating class 001-999 10._____ 24-26

11. Size of graduating class 001-999 11._____ 27-29

12. Overall high school GPA 12._____ 30-32

13. English (2 digits) 13._____ 33-34

14. Math (2 digits) 14._____ 35-36

15. Sciences (2 digits) 15._____ 37-38

16. Social Studies (2dig.) 16._____ 39-40

17. Foreign Language (2 digits) 17._____ 41-42

18. Electives (2 digits) 18._____ 43-44

WASHINGTON PRE-COLLEGE SCORES
(Use Standard Score)

19. English Composite 19._____ 46-47

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RESEARCH ID _____

20.	Verbal Composite	20.	48-49
21.	Vocabulary	21.	50-51
22.	English Usage	22.	52-53
23.	Spelling	23.	54-55
24.	Reading Comprehension	24.	56-57
25.	Quantitative Composite	25.	58-59
26.	Quantitative Skills	26.	60-61
27.	Applied Math	27.	62-63
28.	Math Achievement	28.	64-65
29.	Spatial Ability	29.	66-67
30.	Mechanical Reasoning	30.	68-69
31.	Nursing Prediction practice (clinical)	31.	70-71
32.	Nursing Prediction principles (theory)	32.	72-73
33.	All College Predicted GPA	33.	74-75
		***	76-77
	Study Number	1	78
		***	79
	Card Number	1	80

RESEARCH ID _____ 1-5

*** 6

PREVIOUS NURSING EXPERIENCE

34. State of Previous Nursing School #1 34. _____ 7-8

Code State			
Washington	=01	Nevada	=09
Alaska	=02	New Mexico	=10
Arizona	=03	Oregon	=11
California	=04	Utah	=12
Colorado	=05	Wyoming	=13
Hawaii	=06	Other U.S.	=14
Idaho	=07	Other non U.S.	=15
Montana	=08		

35. Type of School #1 35. _____ 9
1=3 yr. diploma program
2=2 yr. community college
3=technical vocational(LPN, LVN)
4=4 yr. university
5=other

36. State of Previous Nursing School #2 36. _____ 10-11

37. Type of School #2 (same as above) 37. _____ 12

38. Previous Nursing Degree
1=Diploma (hospital) 38. _____ 13
2=AA, AD
3=LPN, LVN

39. Date of Previous Degree 39. _____ 14-15

*** 16

PREVIOUS NURSING COURSES

40. Related Sciences (Total number credits) 40. _____ 17-18

INTRODUCTORY NURSING (FUNDAMENTALS)

41. Total cum. GPA 41. _____ 19-21

42. Total number credits (graded and P/F) 42. _____ 22-23

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RESEARCH ID_____

HUMAN DEVELOPMENT

43. Total cum. GPA 43. _____ 24-26

44. Total number credits (graded and P/F) 44. _____ 27-28

MEDICAL-SURGICAL NURSING

45. Total cum. GPA 45. _____ 29-31

46. Total number credits (Graded and P/F) 46. _____ 32-33

OBSTETRICAL NURSING

47. Total cum. GPA 47. _____ 34-36

48. Total number credits (Graded and P/F) 48. _____ 37-38

PEDIATRIC NURSING

49. Total cum. GPA 49. _____ 39-41

50. Total number credits (Graded and P/F) 50. _____ 42-43

PSYCHIATRIC NURSING

51. Total cum. GPA 51. _____ 44-46

52. Total number credits (Graded and P/F) 52. _____ 47-48

PROFESSIONAL NURSING

53. Total cum. GPA 53. _____ 49-51

54. Total number credits (Graded and P/F) 54. _____ 52-53

PUBLIC HEALTH NURSING

55. Total cum. GPA 55. _____ 54-56

56. Total number credits (Graded and P/F) 56. _____ 57-58

*** 59-77

Study Number 1 78

*** 79

Card Number 2 80

RESEARCH ID _____ 1-5

*** 6

PREVIOUS COLLEGE EXPERIENCE

57. State of Previous College #1 57. _____ 7-9

Code State			
Washington	=01		
Alaska	=02	Nevada	=09
Arizona	=03	New Mexico	=10
California	=04	Oregon	=11
Colorado	=05	Utah	=12
Hawaii	=06	Wyoming	=13
Idaho	=07	Other U.S.	=14
Montana	=08	Other non U.S.	=15

58. Type of Previous (#1) College 58. _____ 10
1=4 yr. university/ college
2=2 yr. community college
3=technical vocational
4=other

59. State of Previous College #2 59. _____ 11-12

60. Type of Previous College #2 (same as above) 60. _____ 13

61. Previous College Degree 61. _____ 14
1=AA, AD (non-nursing)
2=BA, BS
3=MA, MS
4=Other

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RESEARCH ID_____

PREVIOUS COLLEGE COURSES
(Non-U. W. Courses)

HUMANITIES
(credits x grade = $\frac{\text{grade points}}{\text{grade}}$ = GPA)

62. Total cum. GPA 62.____ 15-17

63. Total number credits (Graded and P/F) 63.____ 18-19

SOCIAL SCIENCES

64. Total cum. GPA 64.____ 20-22

65. Total number credits (Graded and P/F) 65.____ 23-24

NATURAL SCIENCES

66. Total cum. GPA 66.____ 25-27

67. Total number credits (Graded and P/F) 67.____ 28-29

*** 30

PRE-REQUISITE COURSES

CHEMISTRY 101 & 102
(or equivalents)

68. Total cum. GPA 68.____ 31-33

69. Total number credits (Graded and P/F) 69.____ 34-35

70. Number of times repeated 70.____ 36

71. U. W. or transfer credits
1 = U. W. 71.____ 37
2 = transfer
3 = both

ENGLISH
(Freshman or equivalent, include other English courses in Other University of Washington Courses--Humanities)

72. Total cum. GPA (3 digits) 72.____ 38-40

73. Total number credits (Graded and P/F) 73.____ 41-42

74. Number of times repeated 74.____ 43

75. U. W. or transfer credits
1 = U. W. 75.____ 44
2 = transfer
3 = both

PSYCHOLOGY
(100, 101 or equivalents, include other Psychology courses in Other University of Washington Courses--Social Sciences)

76. Total cum GPA 76.____ 45-47

77. Total number credits (Graded and P/F) 77.____ 48-49

78. Number of times repeated 78.____ 50

79. U. W. or transfer credits
1 = U. W. 79.____ 51
2 = transfer
3 = both

SOCIOLOGY OR ANTHROPOLOGY
(Soc. 110, Anthro. 202 or equivalents, include others in Other University of Washington Courses--Social Sciences)

80. Total cum. GPA 80.____ 52-54

81. Total number credits (Graded and P/F) 81.____ 55-56

82. Number of times repeated 82.____ 57

Rev. 1/75 MSL:sea

RESEARCH ID_____

83. U. W. or transfer credits
1 = U. W.
2 = transfer
3 = both
83._____ 58

MATH
(Math 105 or 106, include others in Other University of Washington Courses--Natural Sciences)

84. Total cum. GPA 84._____ 59-61

85. Total number credits (Graded and P/F) 85._____ 62-63

86. Number of times repeated 86._____ 64

87. U. W. or transfer credits
1 = U. W.
2 = transfer
3 = both
87._____ 65

BIOMECHANICS
(P. E. 205 or equivalent)

88. Total cum. GPA 88._____ 66-68

89. Total number credits (Graded and P/F) 89._____ 69-70

90. Number of times repeated 90._____ 71

91. U. W. or transfer credits
1 = U. W.
2 = transfer
3 = both
91._____ 72

*** 73-77

Study number 1 78

*** 79

Card Number 3 80

Rev. 1/75 MSL:sea

RESEARCH ID _____ 1-5

*** 6

REQUIRED COURSES OLD CURRICULUM

MICROBIOLOGY 301 & 302

92. Total cum. GPA 92._____ 7-9

93. Total number credits (Graded and P/F) 93._____ 10-11

94. Number of times repeated 94._____ 12

PHARMACY 350 & 351

95. Total cum. GPA 95._____ 13-15

96. Total number credits (Graded and P/F) 96._____ 16-17

97. Number of times repeated 97._____ 18

HOME EC. 319, NUTRITION

98. Total cum. GPA 98._____ 19-21

99. Total number credits (Graded and P/F) 99._____ 22-23

100. Number of times repeated 100._____ 24

PC EP 410 (PRINCIPLES OF COMMUNICABLE DISEASE CONTROL & BIOSTATISTICS)

101. Total cum. GPA 101._____ 25-27

102. Total number credits (Graded and P/F) 102._____ 28-29

RESEARCH ID_____

103. Number of times repeated 103._____ 30

PC HS 323 (Principles and Practice of Public Health)

104. Total cum. GPA 104._____ 31-33

105. Total number credits (Graded and P/F) 105._____ 34-35

106. Number of times repeated 106._____ 36

Conjoint 316, 317, 318

107. Total cum. GPA 107._____ 37-39

108. Total number credits (Graded and P/F) 108._____ 40-41

109. Number of times repeated 109._____ 42

NURSING COURSES OLD CURRICULUM

Fundamentals N227, 228, 229

110. Total cum. GPA 110._____ 43-45

111. Total number credits (Graded and P/F) 111._____ 46-47

112. Number of times repeated 112._____ 48

N260 Scientific Principles

113. Total cum. GPA 113._____ 49-51

114. Total number credits (Graded and P/F) 114._____ 52-53

115. Number of times repeated 115._____ 54

N371, N373 Principles of Medical-Surgical Nursing

116. Total cum. GPA 116._____ 55-57

117. Total number credits (Graded and P/F) 117._____ 58-59

118. Number of times repeated 118._____ 60

N372, N374 Practice of Medical-Surgical Nursing

119. Total cum. GPA 119._____ 61-63

120. Total number credits (Graded and P/F) 120._____ 64-65

121. Number of times repeated 121._____ 66

N298, N299 Growth and Development

122. Total cum. GPA 122._____ 67-69

123. Total number credits (Graded and P/F) 123._____ 70-71

124. Number of times repeated 124._____ 72

*** 73-77

Study Number 1 78

*** 79

Card Number 4 80

Rev. 1/75 MSL:sea

RESEARCH ID _____

RESEARCH ID _____ 1-5

*** 6

N367, Family Centered Maternal and Infant Nursing

125. Total cum. GPA 125. _____ 7-9

126. Total number credits (Graded and P/F) 126. _____ 10-11

127. Number of times repeated 127. _____ 12

N368, Lab in Maternal and Infant Nursing

128. Total cum. GPA 128. _____ 13-15

129. Total number credits (Graded and P/F) 129. _____ 16-17

130. Number of times repeated 130. _____ 18

N369, Family Centered Nursing of Children

131. Total cum. GPA 131. _____ 19-21

132. Total number credits (Graded and P/F) 132. _____ 22-23

133. Number of times repeated 133. _____ 24

N370, Lab in Family Centered Nursing of Children

134. Total cum. GPA 134. _____ 25-27

135. Total number credits (Graded and P/F) 135. _____ 28-29

136. Number of times repeated 136. _____ 30

N413, Principles of Psychiatric Mental Health Nursing

137. Total cum. GPA 137. _____ 31-33

138. Total number credits (Graded and P/F) 138. _____ 34-35

139. Number of times repeated 139. _____ 36

N414, Practice of Principles of Psychiatric Mental Health Nursing

140. Total cum. GPA 140. _____ 37-39

141. Total number credits (Graded and P/F) 141. _____ 40-41

142. Number of times repeated 142. _____ 42

N409, History and Trends

143. Total cum. GPA 143. _____ 43-45

144. Total number credits (Graded and P/F) 144. _____ 46-47

145. Number of times repeated 145. _____ 48

N488, Effects of Alcohol in Health & Disease, N489, Alcohol Problems in Family & Society

146. Total cum. GPA 146. _____ 49-51

147. Total number credits (Graded and P/F) 147. _____ 52-53

148. Number of times repeated 148. _____ 54

Rev. 1/75 MSL:sea

RESEARCH ID _____

N425, N499 Independent Reading & Research

149. Total cum. GPA 149. _____ 55-57

150. Total number credits (Graded and P/F) 150. _____ 58-59

151. Number times repeated 151. _____ 60

N420, Special Fields of Community Health

152. Total cum. GPA 152. _____ 61-63

153. Total number credits (Graded and P/F) 153. _____ 64-65

154. Number times repeated 154. _____ 66

N361, Cultural Variation and Nursing Practice

155. Total cum. GPA 155. _____ 67-69

156. Total number credits (Graded and P/F) 156. _____ 70-71

157. Number times repeated 157. _____ 72

*** 73-77

Study Number 1 78

*** 79

Card Number 5 80

RESEARCH ID _____ 1-5

*** 6

Rev. 1/75 MSL:sea

N301, Principles of Patient Teaching

158. Total cum. GPA 158. _____ 7-9

159. Total number credits (Graded and P/F) 159. _____ 10-11

160. Number times repeated 160. _____ 12

N429, Gerontology

161. Total cum. GPA 161. _____ 13-15

162. Total number credits (Graded and P/F) 162. _____ 16-17

163. Number times repeated 163. _____ 18

N412, Scientific Principles in Nursing Care

164. Total cum. GPA 164. _____ 19-21

165. Total number credits (Graded and P/F) 165. _____ 22-23

166. Number times repeated 166. _____ 24

N415, Community Health Principles

167. Total cum. GPA 167. _____ 25-27

168. Total number credits (Graded and P/F) 168. _____ 28-29

169. Number times repeated 169. _____ 30

N416, Community Health Nursing Practice

170. Total cum. GPA 170. _____ 31-33

171. Total number credits (Graded and P/F) 171. _____ 34-35

172. Number times repeated 172. _____ 36

RESEARCH ID ____

N421, 422 Nursing Leadership Senior Clinical Nursing

173. Total cum. GPA 173. ____ 37-39

174. Total number credits (Graded and P/F) 174. ____ 40-41

175. Number times repeated 175. ____ 42

N351, Changing Concepts of Professional Nursing

176. Total cum. GPA 176. ____ 43-45

177. Total number credits (Graded and P/F) 177. ____ 46-47

178. Number times repeated 178. ____ 48

N353, Scientific Basis for Nursing Action

179. Total cum. GPA 179. ____ 49-51

180. Total number credits (Graded and P/F) 180. ____ 52-53

181. Number times repeated 181. ____ 54

N356, Comprehensive Medical-Surgical Nursing

182. Total cum. GPA 182. ____ 55-57

183. Total number credits (Graded and P/F) 183. ____ 58-59

184. Number times repeated 184. ____ 60

N354, Maternal-Child Nursing

185. Total cum. GPA 185. ____ 61-63

186. Total number credits (Graded and P/F) 186. ____ 64-65

187. Number times repeated 187. ____ 66

Rev. 1/75 MSL:sea

N358, Psychiatric Concepts For Nursing Action

188. Total cum. GPA 188. ____ 67-69

189. Total number credits (Graded and P/F) 189. ____ 70-71

190. Number times repeated 190. ____ 72

*** 73-77

Study Number 1 78

*** 79

Card Number 6 80

RESEARCH ID ____ 1-5

*** 6

REQUIRED COURSES, NEW CURRICULUM

Microbiology 301-302

191. Total cum. GPA 191. ____ 7-9

192. Total number credits (Graded and P/F) 192. ____ 10-11

193. Number times repeated 193. ____ 12

Pharmacy 315

194. Total cum. GPA 194. ____ 13-15

195. Total number credits (Graded and P/F) 195. ____ 16-17

196. Number times repeated 196. ____ 18

RESEARCH ID_____

HOME EC. 319, NUTRITION

197. Total cum. GPA 197. _____ 19-21

198. Total number credits (Graded and P/F) 198. _____ 22-23

199. Number times repeated 199. _____ 24

STATISTICS: SOCIOLOGY 223 SOCIAL STATISTICS EDUC. PSYCH. 409 OR BIOSTATISTICS 472

200. Total cum. GPA 200. _____ 25-27

201. Total number credits (Graded and P/F) 201. _____ 28-29

202. Number times repeated 202. _____ 30

CONJOINT 317

203. Total cum. GPA 203. _____ 31-33

204. Total number credits (Graded and P/F) 204. _____ 34-35

205. Number times repeated 205. _____ 36

CONJOINT 318

206. Total cum. GPA 206. _____ 37-39

207. Total number credits (Graded and P/F) 207. _____ 40-41

208. Number times repeated 208. _____ 42

NURSING COURSES, NEW CURRICULUM

N281, N302 NURSING PROCESS I & II

209. Total cum. GPA 209. _____ 43-45

210. Total number credits (Graded and P/F) 210. _____ 46-47

211. Number times repeated 211. _____ 48

N297, N300 HUMAN DEVELOPMENT I & II

212. Total cum. GPA 212. _____ 49-51

213. Total number credits (Graded and P/F) 213. _____ 52-53

214. Number times repeated 214. _____ 54

N263, COMMUNICATIONS IN HELPING RELATIONSHIPS

215. Total cum. GPA 215. _____ 55-57

216. Total number credits (Graded and P/F) 216. _____ 58-59

217. Number times repeated 217. _____ 60

N303, PSYCHOSOCIAL CARE IN ADAPTIVE AND MALADAPTIVE BEHAVIORS I

218. Total cum. GPA 218. _____ 61-63

219. Total number credits (Graded and P/F) 219. _____ 64-65

220. Number times repeated 220. _____ 66

N321, NURSING CARE OF ILL ADULTS AND CHILDREN

221. Total cum. GPA 221. _____ 67-69

222. Total number credits (Graded and P/F) 222. _____ 70-71

223. Number times repeated 223. _____ 72

Rev. 1/75 MSL:sea

RESEARCH ID_____

	***	73-77
Study Number	1	78
	***	79
Card Number	7	80

RESEARCH ID _____ 1-5

*** 6

N322, Laboratory I

224. Total cum. GPA 224. _____ 7-9

225. Total number credits (Graded and P/F) 225. _____ 10-11

226. Number times repeated 226. _____ 12

N323, Nursing Care of Ill Adults and Children II

227. Total cum. GPA 227. _____ 13-15

228. Total number credits (Graded and P/F) 228. _____ 16-17

229. Number times repeated 229. _____ 18

N324, Laboratory II

230. Total cum. GPA 230. _____ 19-21

231. Total number credits (Graded and P/F) 231. _____ 22-23

232. Number times repeated 232. _____ 24

N325, Nursing Care of Ill Adults and Children III

233. Total cum. GPA 233. _____ 25-27

234. Total number credits (Graded and P/F) 234. _____ 28-29

235. Number times repeated 235. _____ 30

N326, Laboratory III

236. Total cum. GPA 236. _____ 31-33

237. Total number credits (Graded and P/F) 237. _____ 34-35

238. Number times repeated 238. _____ 36

N405, Care Systems Analysis

239. Total cum. GPA 239. _____ 37-39

240. Total number credits (Graded and P/F) 240. _____ 40-41

241. Number times repeated 241. _____ 42

N403, Psychosocial Care in Adaptive and Maladaptive Behaviors II

242. Total cum. GPA 242. _____ 43-45

243. Total number credits (Graded and P/F) 243. _____ 46-47

244. Number times repeated 244. _____ 48

N407, Psychosocial Laboratory

245. Total cum. GPA 245. _____ 49-51

246. Total number credits (Graded and P/F) 246. _____ 52-53

247. Number times repeated 247. _____ 54

Rev. 1/75 MSL:sea

RESEARCH ID_____

N400, Family Centered Nursing in the Community

248. Total cum. GPA 248. ____ 55-57

249. Total number credits (Graded and P/F) 249. ____ 58-59

250. Number times repeated 250. ____ 60

N401, Maximizing Health in the Community

251. Total cum. GPA 251. ____ 61-63

252. Total number credits (Graded and P/F) 252. ____ 64-65

253. Number times repeated 253. ____ 66

N406, Introduction to Research

254. Total cum. GPA 254. ____ 67-69

255. Total number credits (Graded and P/F) 255. ____ 70-71

256. Number times repeated 256. ____ 72

*** 73-77

Study Number 1 78

*** 79

Card Number 8 80

RESEARCH ID ____ 1-5

*** 6

N423, Nursing Practioner in Special Fields

257. Total cum. GPA 257. ____ 7-9

258. Total number credits (Graded and P/F) 258. ____ 10-11

259. Number times repeated 259. ____ 12

N361, Cultural Variation and Nursing Practice

260. Total cum. GPA 260. ____ 13-15

261. Total number credits (Graded and P/F) 261. ____ 16-17

262. Number times repeated 262. ____ 18

*** 19-77

Study Number 1 78

*** 79

Card Number 9 80

RESEARCH ID ____ 1-5

*** 6

Other University of Washington Courses

Humanities

(credits x grade = $\frac{\text{grade points}}{\text{grade}}$ = GPA)

263. Total cum. GPA 263. ____ 7-9

RESEARCH ID_____

264. Total number credits (Graded and P/F) 264. ____ 10-11

SOCIAL SCIENCES

265. Total cum. GPA 265. ____ 12-14

266. Total number credits (Graded and P/F) 266. ____ 15-16

NATURAL SCIENCES

267. Total cum. GPA 267. ____ 17-19

268. Total number credits (Graded and P/F) 268. ____ 20-21

*** 22

WITHDRAWAL INFORMATION
(reverse Chronological Order)

MOST RECENT DROP

269. Quarter - Year 269. ____ 23-25

270. First reason given for drop (see coded list) 270. ____ 26-27

271. Second reason given for drop 271. ____ 28-29

272. Third reason given for drop 272. ____ 30-31

273. First stated future plan 273. ____ 32-33

274. Second stated future plan 274. ____ 34-35

275. Readmission--Quarter - Year 275. ____ 36-38

SECOND MOST RECENT DROP

276. Quarter - Year 276. ____ 39-41

277. First reason given for drop 277. ____ 42-43

278. Second reason given for drop 278. ____ 44-45

279. Third reason given for drop 279. ____ 46-47

280. First stated future plan 280. ____ 48-49

281. Second stated future plan 281. ____ 50-51

282. Readmission--Quarter - Year 282. ____ 52-54

283. Total number of drops 283. ____ 55

*** 56

FINAL OUTCOMES (ONLY NURSING GRADUATES)

284. Admission to nursing--Quarter - Year 284. ____ 57-59

285. Concurrent U. of W. degree received (code department) 285. ____ 60-62

286. Graduated U. of W. nursing--Quarter - Year 286. ____ 63-65

287. Final GPA 287. ____ 66-68

288. Total U. of W. credits earned 288. ____ 69-71

289. Final status (record when original class graduates - withdrawn students only) 289. ____ 72

1=graduated another UW dept
2=enrolled UW undergraduate
3=enrolled UW graduate school
4=withdrew UW voluntarily not re-entered
5=withdrew UW involuntarily not re-entered

*** 73-77

Study Number 1 78

Card Number 10 79-80

Rev. 1/75 MSL:sea

APPENDIX N

SUMMARY OF STUDENT RECORD, PSYCHOLOGICAL TEST AND STUDENT CHARACTERISTICS DATA, SUMMER, 1975

	CLASS OF	B-72	B-73	B-74	B-75	B-76	NEW CURRICULUM B-77	RNB
STUDENT RECORD DATA	1. INITIAL DATA	1. Gathered (IER) coded, on tape	1. Gathered (IER) coded, on tape	1. Gathered (IER) coded, on tape	1. Gathered (IER) coded, on tape	1. Gathered (Briscoe) coded, on tape	1. Not gathered	1. Entered Au. '72-'74, on tape
	2. SENIOR DATA	2. Gathered (IER) coded, on tape	2. Gathered (Briscoe) coded, on tape	2. Gathered (Briscoe) not coded, not on tape	2. not gathered	2. N/A**	2. N/A**	2. Grad. Spr. '73-'74 - coded, not on tape (no previous HS data on anyone)
	3. RENUMBERING OF DATA	3. Complete	3. Complete	3. Complete	3. Complete	3. Complete	3. N/A**	3. Not included
	4. REFORMATING DATA	4. Not complete	4. Not complete	4. Not complete	4. Not complete	4. Not complete	4. N/A**	4. Not included
	5. RECOLLECTION OF DATA NOT COLLECTED ORIGINALLY	5. a)Withdrawals not collected approx. 1/2 N=50; completed b)Missing data	5. a)Withdrawals not gathered N=25; complete b)Missing data not gathered	5. a)Withdrawals not gathered N=45; complete b)Missing data not gathered	5. a)No withdrawals; all were included initially b)Missing data not gathered	5. a)No withdrawals; all were included initially b)Missing data not gathered	5. N/A**	5. Not included
	6. COLLECTION 20% SAMPLE	6. Not included	6. Completed; data available	6. Completed; data available	6. Completed; data available	6. Not included	6. Not included	6. Not included
	7. ANALYSES COMPLETED	7. Prediction of grades in jr. & sr. courses from soph. courses	7. Regression predicting jr. course grades from soph. course grades	7. None	7. None	7. None	7. None	7. None
	8. N - 20% SAMPLE		8. N = 31	8. N = 45	8. N = 51			
	9. Total N	9. N = 151	9. N = 154	9. N = 226	9. N = 259	9. N = 245	9. N = 170	9. N = 82
PSYCHOLOGICAL TEST AND STUDENT CHARACTERISTICS DATA	1. SOPHOMORE DATA	1. No data	1. No data	1. No data	1. Tested, scored	1. Tested, scored	1. N = 16 scored	
	2. SENIOR DATA	2. No data	2. Tested, scored on tape	2. Tested, scored	2. Tested, scored	2. N/A**	2. N/A**	
	3. RENUMBERING OF DATA	3. Complete	3. Complete	3. Complete	3. Complete	3. Complete	3. N/A**	
	4. ANALYSES COMPLETED		4. a)Means, std. dev. & comparisons among classes on POI b)Comparisons with POI data from other sources	4. a)Means, std. dev. & comparisons among classes on POI b)Comparisons with POI data from other sources	4. a)Means, std. dev. & comparisons among classes on POI b)Comparisons with POI data from other sources	4. a)Means, std. dev. & comparisons among classes on POI b)Comparisons with POI data from other sources	4. None	
	5. N - PSYCHOLOGICAL TEST DATA		5. SENIORS (TESTED SPR. '73) AI* N = 65 CCI* N = 40 MB* N = 79 POI* N = 64 SC* N = 100 ALL N = 37	5. SENIORS (TESTED SPR. '74) AI N = 34 CCI N = 23 MB N = 54 POI N = 19 SC N = 55 ALL N = ?	5. SOPH. TESTED (AU. '72) AI N=226 CCI N=110 MB N=220 POI N=123 (OCI N=114) SC N=211 ALL N=106 SR. TESTED (SPR. '75) AI N=9 CCI N=8 MB N=11 POI N=10 SC N=12 ALL N=?	5. SOPH. (TESTED AU. '73) AI N = 133 CCI N = 129 MB N = 136 POI N = 134 SC N = 138 ALL N = 125	5. SOPH. (TESTED W. '75) MB N = 16 POI N = 16 SC N = 14 ALL N = 14	Some RNB's did participate in testing.

*AI = ACTIVITIES INDEX
*CCI = COLLEGE CHARACTERISTICS INDEX
**N/A = NOT APPLICABLE
*MB = MYERS-BRIGGS TYPE INDICATOR
*POI = PERSONAL ORIENTATION INVENTORY
*SC = STUDENT CHARACTERISTICS QUESTIONNAIRE (DEMOGRAPHIC DATA)
*OCI = OCCUPATIONAL CLIMATE INDEX

APPENDIX O

SUMMARY OF STUDENT RECORD DATA, CLASSES OF 1973-1975 AND 1977

AND

ENTERING PROFILE OF CLASS OF 1978

SUMMARY OF STUDENT RECORD DATA, CLASSES OF 1973-1975 AND 1977

VARIABLES	FREQUENCY DISTRIBUTION			
	1973 N=31	1974 N=45	1975 N=51	1977 N=31
	N (%)	N (%)	N (%)	N (%)
Resident Status:				
Washington resident	29 (93.5)	44 (97.8)	50 (98.0)	31 (100.0)
Non resident	2 (6.5)	1 (2.2)	1 (2.0)	-- --
Full-time Students	27 (87.1)	42 (93.4)	50 (98.0)	31 (100.0)
Part-time Students	4 (12.9)	3 (6.6)	1 (2.0)	-- --
Male Students	-- --	4 (8.9)	-- --	-- --
Female Students	31 (100.0)	41 (91.1)	51 (100.0)	31 (100.0)
Marital Status at Entrance to Program:				
Single	29 (93.5)	43 (95.6)	51 (100.0)	31 (100.0)
Married	1 (3.2)	1 (2.2)	-- --	-- --
Divorced	1 (3.2)	-- --	-- --	-- --
Separated	-- --	1 (2.2)	-- --	-- --
Marital Status at Graduation:				
Single	24 (77.4)	31 (68.9)	39 (76.4)	
Married	6 (19.4)	14 (31.1)	10 (19.6)	
Divorced	1 (3.2)	-- --	2 (3.9)	
Separated	-- --	-- --	-- --	
Widowed	-- --	-- --	-- --	
Dominant Ethnic Origin:				
Caucasian	31 (100.0)	44 (97.8)	51 (100.0)	31 (100.0)
Black (AfroAmerican)	-- --	1 (2.2)	-- --	-- --
Religious Preference:				
Protestant	26 (83.9)	41 (91.1)	51 (100.0)	31 (100.0)
Catholic	4 (12.9)	3 (6.7)	-- --	-- --
Jewish	1 (3.2)	1 (2.2)	-- --	-- --
HIGH SCHOOL EXPERIENCE:				
High school location:				
Washington	26 (83.9)	31 (68.9)	44 (86.3)	26 (83.9)
California	3 (9.7)	1 (2.2)	2 (3.9)	3 (9.7)
Colorado	-- --	1 (2.2)	-- --	-- --
Montana	1 (3.2)	1 (2.2)	-- --	1 (3.2)
Oregon	-- --	1 (2.2)	1 (2.0)	-- --
Other U. S.	1 (3.2)	3 (6.7)	3 (5.9)	1 (3.2)
Other non-U. S.	-- --	-- --	1 (2.0)	-- --
No data	-- --	7 (15.6)	-- --	-- --
Rank in graduating class:				
MEAN	17.82	37.08	22.41	45.31
STD DEV	30.29	50.35	52.86	47.83
N=	28	38	51	13
NO DATA	3	7	--	18
Size of graduating class:				
MEAN	153.14	281.45	133.92	319.21
STD DEV	224.61	277.08	219.45	196.69
N=	28	38	51	14
NO DATA	3	7	--	17
Overall high school GPA				
MEAN	3.06	2.96	2.84	3.34
STD DEV	.71	1.12	1.15	.49
N=	29	38	51	26
NO DATA	2	7	--	5
English GPA				
MEAN	3.04	2.88	2.55	
STD DEV	.93	1.34	1.50	
N=	28	38	51	
NO DATA	3	7	--	
Math GPA				
MEAN	2.91	2.66	2.20	
STD DEV	.98	1.21	1.43	
N=	28	38	51	
NO DATA	3	7	--	
Sciences GPA				
MEAN	2.82	2.62	2.33	
STD DEV	.97	1.26	1.44	
N=	28	38	51	
NO DATA	3	7	--	

Social Studies GPA:					
	MEAN	3.02	2.89	2.56	
	STD DEV	.99	1.33	1.52	
	N=	28	38	51	
	NO DATA	3	7	--	
Foreign Language GPA:					
	MEAN	2.82	2.82	2.52	
	STD DEV	1.00	1.46	1.57	
	N=	28	38	51	
	NO DATA	3	7	--	
Electives GPA:					
	MEAN	2.90	3.02	2.64	
	STD DEV	1.26	1.39	1.55	
	N=	28	38	51	
	NO DATA	3	7	--	
PREVIOUS NURSING EDUCATION:					
No Previous Nursing Education		27 (87.1)	40 (88.9)	50 (98.0)	31 (100.0)
Some Previous Nursing Education		4 (12.9)	5 (11.0)	1 (2.0)	-- --
State of Previous Nursing School:					
Washington		--	2 (4.4)	1 (2.0)	-- --
Arizona		--	1 (2.2)	-- --	-- --
Oregon		--	2 (4.4)	-- --	-- --
Type of School:					
Community college		2 (6.5)	-- --	-- --	-- --
Technical vocational (LPN, LVN)		1 (3.2)	1 (2.2)	1 (2.0)	-- --
Four-year university		1 (3.2)	4 (8.9)	-- --	-- --
Previous Nursing Degree:					
AA, AD		1 (3.2)	-- --	-- --	-- --
LPN, LVN		1 (3.2)	1 (2.2)	1 (2.0)	-- --
Date of Previous Degree:					
1966		-- --	1 (2.2)	1 (2.0)	-- --
1967		1 (3.2)	-- --	-- --	-- --
1968		1 (3.2)	-- --	-- --	-- --
PREVIOUS COLLEGE EXPERIENCE:					
No Previous College Experience		16 (51.6)	19 (42.2)	21 (41.2)	17 (54.8)
Some Previous College Experience		15 (48.4)	26 (57.8)	30 (58.8)	14 (45.2)
State of First Previous College:					
Washington		7 (22.6)	20 (44.4)	25 (49.0)	7 (23.3)
Arizona		-- --	1 (2.2)	-- --	-- --
California		1 (3.2)	-- --	1 (2.0)	1 (3.3)
Montana		-- --	1 (2.2)	-- --	-- --
Oregon		2 (6.5)	1 (2.2)	1 (2.0)	2 (6.7)
Utah		1 (3.2)	-- --	-- --	1 (3.3)
Other U. S.		2 (6.5)	2 (4.4)	3 (5.9)	2 (6.7)
Other non-U. S.		1 (3.2)	-- --	-- --	1 (3.3)
Type of First Previous College:					
Four-year university		5 (16.1)	13 (28.9)	15 (29.4)	8 (26.7)
Two-year community college		10 (32.3)	9 (20.0)	14 (27.5)	4 (13.3)
Other		-- --	4 (8.9)	1 (2.0)	-- --
State of Second Previous College:					
Washington		5 (16.1)	2 (4.4)	7 (13.7)	5 (16.7)
California		1 (3.2)	-- --	1 (2.0)	1 (3.3)
Oregon		-- --	-- --	1 (2.0)	-- --
Other U. S.		-- --	-- --	1 (2.0)	-- --
Type of Second Previous College:					
Four-year university		3 (9.7)	2 (4.4)	8 (15.7)	3 (10.0)
Two-year community college		4 (12.9)	2 (4.4)	4 (7.8)	4 (13.3)
Previous College Degree:					
AA, AD (non-nursing)		1 (3.2)	-- --	-- --	1 (3.3)
BA, BS		2 (6.5)	1 (2.2)	2 (3.9)	2 (6.7)
PRE-REQUISITE COURSES:					
Chemistry 101 & 102 Total Cumulative GPA					
	MEAN	2.16	2.76	2.73	3.05
	STD DEV	.79	.81	.89	.94
	N=	30	45	51	31
	NO DATA	1	--	--	--
English Total Cumulative GPA					
	MEAN	2.58	2.76	2.95	2.61
	STD DEV	.99	1.06	.81	1.65
	N=	31	45	51	31
	NO DATA	--	--	--	--

Psychology Total Cumulative GPA					
	MEAN	2.30	3.18	3.22	3.57
	STD DEV	1.37	.95	.90	.94
	N=	30	43	51	31
	NO DATA	1	2	--	--
Sociology or Anthropology Total Cumulative GPA					
	MEAN	2.69	2.97	3.20	3.13
	STD DEV	.99	.89	1.13	.95
	N=	31	43	51	31
	NO DATA	--	2	--	--
REQUIRED COURSES:					
Microbiology (301 & 302) Total Cumulative GPA					
	MEAN	2.25	2.40	2.34	
	STD DEV	.64	.93	.93	
	N=	31	45	51	
	NO DATA	--	--	--	
Pharmacy (350, 351--1973,1974,1975 or 315--1977) Total Cumulative GPA:					
	MEAN	1.83	2.31	2.24	
	STD DEV	1.00	1.01	1.04	
	N=	29	44	51	
	NO DATA	2	1	--	
Home Ec. (319), Nutrition Total Cumulative GPA					
	MEAN	2.43	2.55	2.63	
	STD DEV	.86	1.15	1.28	
	N=	30	40	51	
	NO DATA	1	5	--	
Conjoint (316, 317, 318--1973, 1974, 1975) Total Cumulative GPA:					
	MEAN	2.27	2.36	2.41	--
	STD DEV	.69	1.00	1.08	--
	N=	29	45	51	--
	NO DATA	2	--	--	--
Conjoint (317--1977) Total Cumulative GPA:					
	MEAN	--	--	--	3.14
	STD DEV	--	--	--	.80
	N=	--	--	--	28
	NO DATA	--	--	--	3
Conjoint (318--1977) Total Cumulative GPA:					
	MEAN	--	--	--	3.07
	STD DEV	--	--	--	.90
	N=	--	--	--	28
	NO DATA	--	--	--	3
NURSING COURSES:					
Fundamentals (N227, 228, 229--1973, 1974, 1975) or Nursing Process I & II (N281, N302--1977) Total Cumulative GPA:					
	MEAN	2.82	2.73	2.97	3.50
	STD DEV	.47	.97	.85	.44
	N=	30	45	51	29
	NO DATA	1	--	--	2
WITHDRAWAL INFORMATION:					
Withdrawal from Program		6 (19.4)	14 (31.1)	11 (21.6)	1 (3.2)
Remaining with Program		25 (80.6)	31 (68.9)	40 (78.4)	30 (96.8)
Reason for Drop:					
Change Major		--	2	1	--
Academic Problems		4	2	8	4
Personal Problems		--	6	6	--
Health Problems or Pregnancy		1	2	1	--
Marriage		--	4	1	--
Financial		--	1	2	--
Low Grade--University Drop		1	--	1	1
Other		1	--	--	--
On Leave		--	1	1	--
Future Plans:					
Work		-- --	-- --	1 (2.0)	-- --
Attend another school of nursing		1 (3.2)	-- --	1 (2.0)	1 (3.3)
Attend another school		1 (3.2)	2 (4.4)	3 (5.9)	1 (3.3)
No plans		-- --	1 (2.2)	1 (2.0)	-- --
Reapply to the UW School of Nursing		4 (12.9)	11 (24.4)	3 (5.9)	3 (10.0)
Advisor's Recommendation for Readmission:					
Readmit Same Point		5 (16.1)	12 (26.7)	6 (11.8)	4 (13.3)
Should Not Readmit		-- --	-- --	5 (9.8)	-- --
Final Status:					
Enrolled UW undergraduate		-- --	-- --	7 (13.7)	-- --
Enrolled UW graduate school		-- --	-- --	1 (2.0)	-- --
Withdrew UW voluntarily--not re-entered		2 (6.5)	7 (15.6)	5 (9.8)	-- --

ENTERING PROFILE OF CLASS OF 1978*

Total number of applicants:	464
Total number of applicants denied:	130
Total number of applicants withdrawing before selection:	14
Total number of applicants in selection pool:	319
Total number of males applying:	24
Total number of males in selection pool:	24
Total number of minorities applying:	31
Total number of minorities in selection pool:	31
Mean CGP of all applicants: Not known, not all applying had CGP	
Mean CGP of applicants in selection pool:	Unknown
Mean CGP of applicants denied: Not known, no CGP for many	
Total number of out-of-state applicants:	29
States represented: Ca., N.Y., Or., Wis., Utah, Colo., Vt., Pa., Tenn., Hawaii	
Mean CGP of Class	3.48
Cut off score for top 40:	11.64
Mean CGP of top 40:	3.77
Mean CGP of lottery-placed students:	3.36
Mean CGP of minorities	3.13
Number of minorities:	21
Number of males:	7
Number of RNBs: (CGP of RNs - Nsg. = 2.75; Non Nsg. = 3.06)	5
Number of students withdrew after selection:	16
Number of out-of-state students:	2
States represented:	Ca., Ha.

*Distributed by Carolyn Kellogg, Undergraduate Advising Office, February, 1976

APPENDIX P

REVIEW OF LITERATURE PERTAINING TO STUDENT RECORD DATA

Prepared by Dr. Vivian Wolf-Wilets

In the grant proposal submitted in 1970, one of the specific aims of the project was to "describe the student who will be enrolled in the program." The variables used to study nursing students can be organized in two categories. There have been a number of studies which looked at nursing students in the United States and studies which looked at nursing students at the University of Washington. These studies point to relationships that have already been found among student characteristics and their completion or withdrawal from the program.

One of the most extensive studies done of the characteristics of nurses was done by Lucille Knopf. This national longitudinal Nurse Career-Pattern Study was done on students entering in 1962, 1965, and 1967.[1,2] Knopf describes the study in the following manner:

> The Nurse Career-Pattern Study consists of four concurrent, longitudinal studies of about 45,000 students in: (1) practical nursing programs; (2) associate degree programs; (3) hospital diploma programs; and (4) baccalaureate programs. When the study was initiated, samples of each type of nursing program were chosen by random number selection from the list of programs having State approval in October 1961.[3]

The percentage and number of baccalaureate programs participating in the Nurse Career-Pattern Study were: 39.1% (N=68) in 1962; 35.6% (N=67) in 1965; and 31.0% (N=65) in 1967. From this it will be seen that this study provides a good basis for comparison of the recent characteristics of nursing students in the United States and baccalaureate students in our program.[4] The major variables in the study were personal characteristics, including sex, birthplace, age, marital status, number of children, ethnic grouping, religious or church affiliation, and sibling placement. Variables relating to previous education before entering nursing were: high school academic standing, size of communities where participant attended high school, size of participant's high school graduating class, comparative location of high school and nursing school, and

participant's previous attendance at another nursing school. Information gathered about parents was: fathers living, birthplace of fathers, occupation of fathers, employment status of fathers, and education of fathers. Hollingshead's social index of fathers was developed from this data. The same variables were gathered for the mothers of students. Financial information in relation to family income and financial assistance was gathered. Other major sets of variables were: the reasons for choosing nursing, the reasons for choosing a particular program, and the student's career plan. All the variables were gathered by type of program.

The following major findings in relation to baccalaureate programs were reported: Students in baccalaureate programs were predominantly women under 20 years of age, single, and white; and the proportion of negroes increased slightly over the three years studied. Parents of baccalaureate students were characterized by: higher educational attainment, more fathers in white-collar and professional positions, more mothers were registered nurses, and family incomes in higher brackets when compared to the diploma and associate degree programs.

For all programs, the majority were in-state residents, Christian, and about one-third or more of the students' mothers were employed outside the home. There was a higher proportion of Roman Catholics in diploma programs. The three most common reasons given for entering nursing given for all programs were: 1) "to be of help to others," 2) "to have a good profession," and 3) "to gain personal satisfaction." Other reasons that differentiated the selection of programs were: Associate degree students stressed the shortness and location of the program; diploma students stated they felt the program would better prepare them to nurse than other programs; and baccalaureate students expressed their desire for both a collegiate and nursing experience. It can then be seen that the type of student in each type of program tends to be different, in part based

on their criteria for selecting the program. Graduation rates differed with diploma programs having the highest rate and baccalaureate programs having the lowest rate. In the 1962 sample, the only complete sample, 50.5 percent of the baccalaureate students graduated as compared with a graduation rate of 58.5 percent in associate degree programs and 67.6 percent in diploma programs.[5] These type of data provide a comparative base for local withdrawal rates. In baccalaureate programs, a higher percent of males (68.8) than females (49.4) withdrew; and a higher percent of married students (51.4) than single (46.3) withdrew.[6] Scholastic failure was cited most frequently as the principle reason students withdrew.

In the baccalaureate program, the foreign-born students who had attended a high school outside of the United States had a higher rate of graduation than students born in the United States who attended high school here. For women, the percentage of whites graduating was 51.4, Negro (29.8), and "Others" (58.3).[7] Orientals and American Indians were part of the classification, "Others."

In baccalaureate programs for women, there was a clear relation between the graduation rate and the quadrille representing the student's high school graduation standing as follows: top fourth, 61.1; second fourth, 35.9; third fourth, 29.5; and bottom fourth, 8.0.[8] The percentage of students graduating in each NLN region varied: N. Atlantic (61.2), Midwest (59.1), South (42.2), and West (42.9).[9] In relation to age, students who were 20-24 years of age when they entered a baccalaureate program had the highest rate of graduation when compared to other age categories.

If graduation is used as a criterion, many of these variables appear to be related to success in relation to completion of nursing programs. These variables should be included in our description of our graduate so that a

comparison of our graduate with baccalaureate students in the United States can be done..

In a 1965 dissertation by Tjelta, the problem she addressed was to predict the success of students in the University of Washington School of Nursing Program more accurately on the basis of a multivariant prediction model. Tjelta reviewed the literature and sought answers to the following questions:

a) Are there any factors or relationships in the statistical analysis of predictor data, predicted grades and achieved grades which differentiate the nursing students from the total University population?

b) Were the University of Washington predicted grades as accurate for the courses in the revised curriculum for the basic nursing degree (effective Autumn, 1958) as they were for the courses in the unrevised curriculum (graduates prior to 1962)?

c) What is the correlation between success in the required non-nursing courses and the nursing courses in the basic degree program?

d) What combination of predictor variables (formula) will predict academic success for each course required in the basic degree program in nursing? (There were no prediction formulas for Conjoint 317-318 and Humanities 101-102-103.)

e) Are there any factors or relationships in the statistical analysis of predictor data, predicted grades and achieved grades which differentiate the students who withdrew from the School of Nursing because of low scholarship from those who remained enrolled in the School?[11]

When reviewing the literature, some interesting and important findings are cited that have relevance for the present study. As the last curriculum revision was being initiated, the withdrawal rate and scholastic dropout rate increased extensively. The curriculum was revised and initiated in 1958 and the first class graduated in 1962. Tjelta cites the following statistics:

> Because there had been only slight variations in the number enrolled in the basic nursing program, in the preceding seven years, the increase in withdrawals was alarming. The number of withdrawals during 1961-62, as compared with 1960-61 . . . showed a range of 42 to 58 percent loss during the freshman year and the percentage of loss due to low scholarship more than doubled for the 1960 and 1961 classes.[12]

A study by Saunders is also cited by Tjelta in which 106 freshmen entered the program in Autumn, 1958. It was found that the 72 who withdrew from the program were distinguished from the 34 who completed the program by their type of work experiences before entering the program and in the type of residence during enrollment in the program. Other interesting findings were that the all-college grade predictions proved to be better predictors than the nursing courses grade predictions, and the all-college grade predictions were more closely related to the cumulative grade point average and academic achievement of the student. Another finding by Saunders was that scholastic withdrawal seemed to be associated with high school grade point average (GPA). Of the 18 students who entered the class of 1958 with a GPA lower than 2.50 only two students remained and met the academic requirements; two transferred to another college. There were, however, also 18 students with GPA's at or above 2.50 who withdrew because of low scholarship. All the students who withdrew because of low scholarship left by the end of the seventh quarter in which most of the courses are basic non-nursing courses such as physical, biological, social sciences, and humanities.[13.]

Tjelta also cites a survey by Taylor published in 1963 describing the results of a questionnaire responded to by 523 hospital schools of nursing, 76 from colleges, and 99 from universities. The five most frequently used selection procedures were the interview, grade point average, application forms, health forms, and references. Taylor concluded that the best current predictors of academic success were grade point average in previous school work and tests or test batteries other than the National League for Nursing, and the Psychological Corporation. Using other data, Taylor found the College Entrance Examination Board Test was consistently the best single predictor. The Edward's Personal Preference subscore in two studies correlated--.09 to .53. The

usefulness of the tests varied from year to year within a school and from school to school. "Grade point averages and tests did not predict accurately the practical aspects of nursing education or job performance."[14]

After reviewing many other selection and prediction studies, Tjelta drew the following conclusions:

1. Tests of aptitude, intelligence and achievement, and high school grades appear to predict academic success in some nursing schools.
2. Tests or test batteries and grade point average obtained in previous academic work appear to be the best current predictors.
3. Grade point average and current tests do not predict practical aspects of nursing education or performance on the job.
4. Current personality and interest tests do not predict academic success in nursing.
5. Much of the research has been a search for the best predictor rather than a search for the best combination of all available predictors.
6. Much of the research has focused on the general criterion of "success" rather than on the general elements of success or lack of success.
7. There is a need for developing meaningful, reliable, and valid criterion measure in schools of nursing.[15]

Tjelta then presents a review of the literature on attrition from schools of nursing. Since the studies are older than the Knopf study cited earlier, only two of these studies appear relevant to the present study. One study is the study by Kibrick[16] in which variables of role perception, self concept, motivation, socioeconomic background, and anticipated adjustment in relation to withdrawal from a school of nursing. "The findings indicated that certain personality characteristics, certain aspects of motivation and socio-economic background were significantly related to continuing in nursing."[17]

The second study was that done by Mary Skidmore Van Valkenberg.[18] She found that for the 72 students who withdrew from the basic baccalaureate program at the University of Washington during 1958-61 that dissatisfaction with the program of study ranked highest as a reason for leaving, and marriage and desire to change major ranked third. Over 50 percent of the withdrawals from the revised curriculum occurred before the end of the first year. The recorded reasons for withdrawals were: low scholarship (42%), change in major (29%), and marriage (19%).[19]

After reviewing studies of attrition in schools of nursing, some common characteristics of this problem area were identified:

1. The largest percentage of dropouts in the schools of nursing occurred during the first year of the program.
2. Although the reasons for dropouts varied somewhat among schools, academic failure was the number one reason for dropout.
3. There were some indication that researchers are looking beyond the obvious symptomatic reasons for withdrawals and are considering the basic reasons, i. e., abilities or personality traits and nursing school curricula.[20]

Variables which Tjelta included in her study were: sex, age, race, resident or nonresident, dropout (voluntary or involuntary), transfer (University of Washington or other), time of dropout by year, reason for dropout, re-entry, high school total credits, high school grade point average, predicted University of Washington grade point average, predicted nursing grade point average, and status (withdrew, enrolled, or graduated). High school GPA's for english, mathematics, foreign language, social science, natural science, and electives were also used. Test scores in the areas of vocabulary, mechanical knowledge, English usage, spelling, mathematics, social studies, quantitative reasoning, verbal reasoning, inter. mathematics, reading speed, reading level, numerical ability, and space visualization were used as well (these are described on page 68-71).

Criteria or achieved variables used as the dependent variables were: all-college GPA, chemistry GPA, English GPA, nursing GPA, pharmacy GPA, physics GPA, psychology GPA, sociology GPA, microbiology GPA, home economics GPA, preventive medicine GPA, conjoint 317-318 GPA, humanities 101 GPA, humanities 102 GPA, humanities 103 GPA, total number credits, total nursing credits, total non-nursing credits, achieved non-nursing GPA, achieved freshman GPA, achieved sophomore GPA, and achieved junior GPA.

A number of analyses of the data were done. Important correlations among the achieved variables were:

> Of the fourteen courses or course areas Chemistry (.524) had the highest correlation with nursing. The lowest correlation (.131) was with Humanities 102 (The Arts). Only one course area in addition to Chemistry had correlations above .40.
>
> The highest intercorrelations in the achieved variables were the correlations between Microbiology and Conjoint (.686) in the biological science, between Chemistry and Physics (.608) in the physical science, between English and Sociology (.636) in the humanities, and between Pharmacy and Conjoint (.651). Each of these pairs of courses except Physics and Chemistry were taken concurrently in the program.
>
> Because the student has to maintain a 2.00 (C) grade point average to remain enrolled in the University, the All-College Grade Point Average can be considered as a single measure of success for the student. The course grade averages which exerted the greatest influence over the All-College Grade Point Average were Chemistry (.792), Sociology (.734), Nursing (.716), and Conjoint (.688).
>
> The highest course area correlation for both the All-College Average (.792) and for Nursing (.524) were with Chemistry, but Chemistry was also the only course area in which the sample population had a mean score below the required 2.00 grade point average. These findings suggest that Chemistry was a crucial course area for these nursing students.[23]

Other findings were that the mean high school grade point averages for the sample and other university or nursing students were not significant. Nursing students have a tendency to be slightly lower than the female university group but higher than the total university student group. When compared to the female university students, nursing scores were significantly lower in Vocabulary, Verbal Reasoning, Reading, Speed, and Social Studies. When compared to the total group of males and females, the nursing students had higher scores in English Usage and Spelling, but lower scores for Mechanical Knowledge, Mathematics, Social Studies, Quantitative Reasoning, Intermediate Mathematics, Numerical Ability, and Space Visualization.

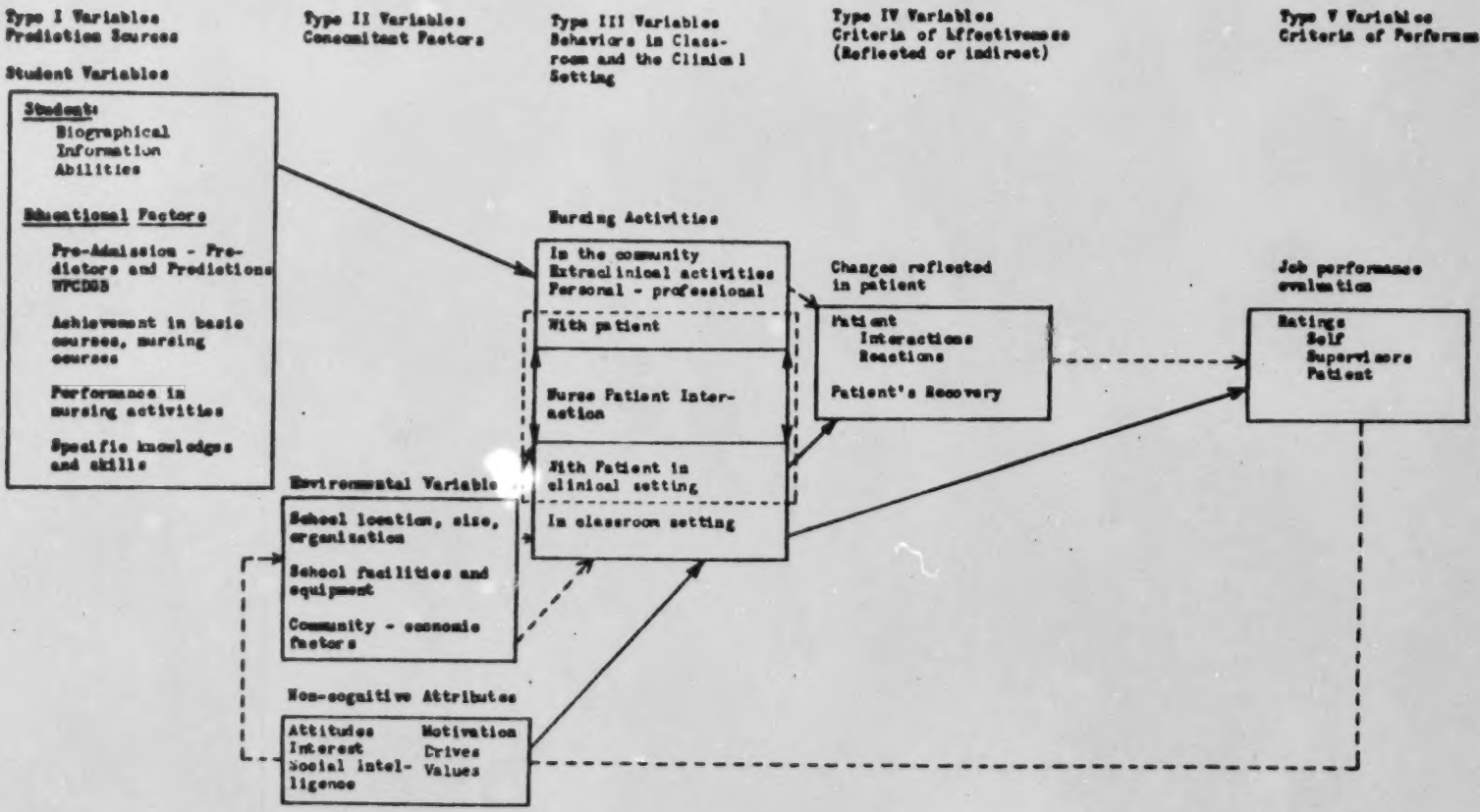
Still another section compared successful and unsuccessful students as to their completion of the program. Statistical tests revealed that 18 of the 21 differences between subgroup means for the predictors could not have been obtained from the same population; and in addition, a comparison of the average predicted grades for the "success" and "failure" subgroups revealed that 40 of the 41 differences could not have occurred by chance.[24] There was a low correlation between predicted grades calculated from the old prediction formula and achieved grades for the sample in the new curriculum which is interpreted by the author as a change in the criterion (Nursing).[25] The low correlations with the Nursing Grade Point Average suggested to the author that level of correlation arose because the low achievers had already been eliminated during the first year before they got to nursing or that the nursing grade might measure abilities which are relatively independent of known academic abilities.[26]

Tjelta concludes by recommending that this type of study be repeated and updated. She also recommends:

> ...that research be aimed toward the discovery of or construction of measures of non-cognitive attributes such as motivation, drive, values, attitudes, interests and social intelligence that may have some predictive relationship both with adjustment and achievement in academic courses and nursing performance. . . . Research should be aimed at defining the criteria for success in nursing performance.[27]

A helpful model of generalized plan for research in the basic degree program in nursing is also presented in the Figure labeled 13.[28] This model aides in delineating areas to be taken into account in an overall design.

FIGURE 13. GENERALIZED PLAN FOR RESEARCH IN THE BASIC DEGREE PROGRAM IN NURSING



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13. Ibid, p. 5.

14. Ibid, p. 26 and p. 39.

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17. Tjelta, p. 46.

18. Van Valkenberg, Mary Skidmore, "A Study of Seventy-Two Students Who Withdrew from the First Class Following a Curriculum Revision of the Basic Baccalaureate Program of the University of Washington School of Nursing," (unpublished Masters Thesis, University of Washington, Seattle, 1963).

19. Tjelta, p. 48.

20. Ibid, p. 49.

21. Ibid, pp. 68-71.

22. Ibid, p. 87.

23. Ibid, pp. 87-88.

24. Ibid, pp. 162-163.

25. Ibid, p. 178.

26. Ibid, p. 180.

27. Ibid, p. 182.

28. Ibid, p. 170.

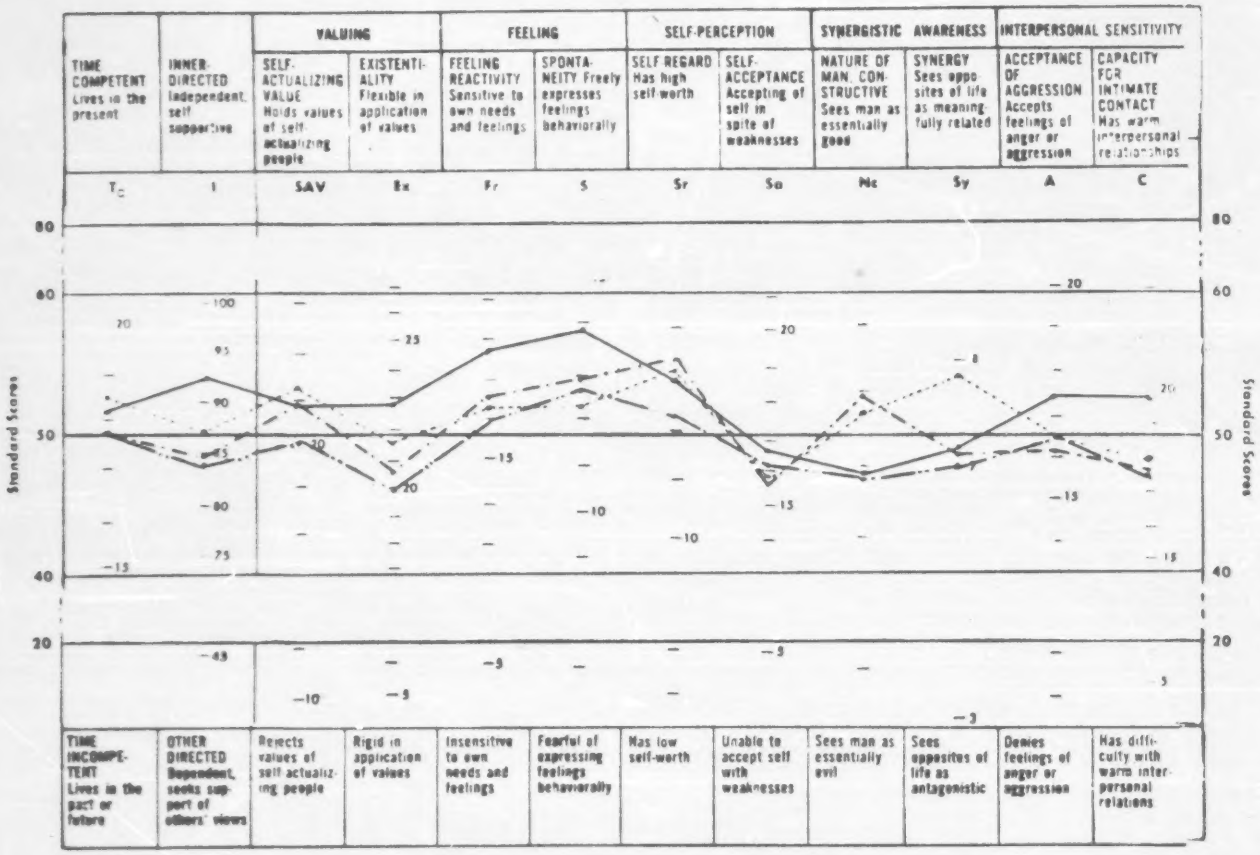
APPENDIX Q

PSYCHOLOGICAL TEST AND STUDENT CHARACTERISTICS QUESTIONNAIRE RESULTS

PERSONAL ORIENTATION INVENTORY--MEAN SCORES, CLASSES OF 1973-1976

VARIABLES	1973 N=63 MEAN	1973 N=63 STD DEV	1974 N=19 MEAN	1974 N=19 STD DEV	1975 N=125 MEAN	1975 N=125 STD DEV	1976 N=133 MEAN	1976 N=133 STD DEV
Time Incompetency-Time competency ratio	5.64	4.72	7.45	7.13	5.25	4.81	4.66	3.97
Other-Inner Directedness Ratio	2.87	1.22	2.46	.90	2.86	6.19	2.22	.83
Time Competency	18.18	2.43	18.53	3.08	17.67	2.82	17.62	2.52
Inner Directedness	90.38	10.55	87.00	9.71	84.90	10.47	84.53	10.43
Self-Actualizing Value	20.78	2.94	21.16	2.34	20.76	5.99	19.93	2.96
Existentiality	22.65	3.92	21.63	4.34	20.61	4.93	19.90	4.20
Feeling Reactivity	17.59	2.85	16.32	3.18	16.62	7.17	15.80	2.86
Spontaniety	13.76	2.45	12.32	3.04	12.88	3.47	12.56	2.51
Self-Regard	12.98	1.74	13.21	1.62	13.04	5.54	12.32	2.31
Self-Acceptance	16.60	3.13	15.79	2.66	15.61	3.87	16.13	3.09
Nature of Man	11.87	2.83	12.74	1.82	12.91	7.16	11.80	2.08
Synergy	7.19	1.06	7.79	.86	7.06	1.22	6.99	1.41
Acceptance of Aggression	17.40	3.25	16.37	2.95	16.14	3.17	16.39	2.98
Capacity for Intimate Contact	19.75	3.03	18.00	3.61	17.70	3.44	17.58	3.62

PROFILE SHEET FOR THE PERSONAL ORIENTATION INVENTORY



BASIC '73(SR.) ——————
BASIC '74(SR.) - - - - - - - -
BASIC '75(SOPH.) —·—·—·—·—·—
BASIC '76(SOPH.) —·——·——·——

MYERS-BRIGGS TYPE INDICATOR--MEAN SCORES, CLASSES OF 1973-1976

SCALES	1973 N=86		1974 N=48		1975 N=219		1976 N=136	
	MEAN	STD DEV	MEAN	STD DEV	MEAN	STD DEV	MEAN	STD DEV
Extraversion-Introversion	96.88	25.95	94.00	22.39	100.33	23.88	97.59	25.47
Sensing-Intuition	105.23	24.13	99.13	25.94	97.15	25.43	96.24	23.19
Judgement-Perception	100.72	23.47	117.33	20.07	101.59	25.26	93.18	24.15
Thinking-Feeling	116.35	19.73	96.50	25.63	114.53	20.28	119.20	20.62

ACTIVITIES INDEX--MEAN SCORES, CLASSES OF 1973-1976

FACTORS	1973 N=68		1974 N=24		1975 N=226		1976 N=127	
	MEAN	STD DEV	MEAN	STD DEV	MEAN	STD DEV	MEAN	STD DEV
Self Assertion	17.40	6.95	18.67	4.30	15.35	6.53	16.35	6.28
Audacity Timidity	17.22	5.46	26.63	17.97	14.79	4.90	17.05	5.31
Intellectual Interests	26.65	7.64	42.96	23.84	25.62	7.49	24.67	7.09
Motivation	24.94	6.51	37.33	21.27	25.14	5.89	24.37	5.77
Applied Interests	16.82	4.57	33.08	24.97	17.82	5.21	17.80	5.11
Orderliness	16.90	6.11	32.08	19.30	19.86	5.98	19.63	6.53
Submissiveness	24.18	4.98	47.04	25.81	26.10	4.89	26.88	4.99
Closeness	28.90	4.07	37.17	17.14	28.97	5.17	30.28	4.39
Sensuousness	18.06	4.14	46.58	31.74	16.11	5.12	17.24	4.72
Friendliness	12.02	3.94	40.42	30.66	10.74	4.17	11.65	3.70
Expressiveness-Constraint	24.27	5.75	35.21	23.10	20.48	6.14	21.84	5.59
Ego Diffidence	9.65	4.33	34.08	29.26	8.95	4.07	10.01	4.23
Achievement Orientation	168.77	21.46	348.33	296.46	98.73	19.37	100.24	21.47
Dependency	103.03	23.10	95.08	63.29	78.53	18.99	155.69	17.56
Emotional Expressiveness	145.66	19.83	201.33	192.20	100.60	23.71	107.36	20.89
Educability	110.28	20.28	83.21	34.27	114.54	20.68	113.35	19.17

COLLEGE CHARACTERISTICS INDEX--MEAN SCORES, CLASSES OF 1973-1976

FACTOR	1973 N=40		1974 N=17		1975 N=110		1976 N=117	
	MEAN	STD DEV	MEAN	STD DEV	MEAN	STD DEV	MEAN	STD DEV
Aspiration Level	25.65	4.30	27.53	4.69	27.03	5.24	27.91	3.44
Intellectual Climate	33.48	6.97	36.53	6.08	36.78	7.47	37.39	5.74
Student Dignity	19.98	4.73	20.82	4.02	22.25	4.25	21.63	4.10
Academic Climate	14.48	3.79	16.18	3.03	16.71	3.01	16.86	2.39
Academic Achievement	28.55	6.47	30.47	5.72	33.11	7.34	33.77	5.87
Self Expression	22.10	4.96	22.47	4.24	26.07	6.13	26.15	4.93
Group Life	18.38	3.97	19.12	3.12	20.02	5.44	22.03	4.43
Academic Organization	25.43	5.02	27.82	6.90	28.30	5.90	29.63	5.78
Social Form	17.85	4.05	19.06	4.87	20.01	6.07	22.58	5.14
Play/Work	22.58	4.79	22.35	4.50	24.76	5.18	24.00	4.28
Vocational Climate	20.30	3.32	19.94	2.73	20.86	4.10	21.83	3.97
Intellectual Climate	191.35	26.32	202.00	20.69	161.95	28.60	207.87	21.31
Non-Intellectual Climate	126.63	14.32	130.77	15.76	140.01	22.32	146.21	17.01
Impulse Control	42.85	8.05	79.35	144.72	56.46	8.84	45.63	8.21

STUDENT CHARACTERISTICS QUESTIONNAIRE RESULTS, CLASSES OF 1973-1976

VARIABLES	FREQUENCY DISTRIBUTION							
	1973 N=154		1974 N=227		1975 N=259		1976 N=245	
	N	(%)	N	(%)	N	(%)	N	(%)
Permanent Address:								
Seattle	46	(29.9)	36	(15.9)	98	(37.8)	47	(19.2)
Seattle Area	11	(7.1)	8	(3.5)	37	(14.3)	24	(9.8)
Tacoma Area	5	(3.2)	8	(3.5)	21	(8.1)	16	(6.5)
Northern Western Washington	4	(2.6)	6	(2.6)	11	(4.2)	15	(6.1)
Southern Western Washington	7	(4.5)	--	--	9	(3.5)	10	(4.1)
Central Eastern Washington	2	(1.3)	2	(.9)	8	(3.1)	9	(3.7)
Far Eastern Washington	--	--	--	--	11	(4.2)	8	(3.3)
Cities in states other than Wash.	2	(1.3)	4	(1.8)	9	(3.5)	9	(3.7)
Cities in countries other than USA	--	--	1	(.4)	1	(.4)	--	--
No data	77	(50.0)	162	(71.4)	54	(20.8)	107	(43.7)
State:								
Washington	80	(51.9)	60	(26.4)	193	(74.5)	129	(52.7)
Other West Coast State	1	(.6)	1	(.4)	5	(1.9)	7	(2.9)
Other states	--	--	1	(.4)	4	(1.5)	2	(.8)
Other countries	--	--	--	--	1	(.4)	--	--
No data	73	(47.4)	165	(72.6)	56	(21.6)	107	(43.7)
Religion:								
Christian	7	(4.5)	9	(4.0)	21	(8.1)	15	(6.1)
Roman Catholic	15	(9.7)	14	(6.2)	48	(18.5)	29	(11.8)
Protestant, denomination:								
unspecified	11	(7.1)	13	(5.7)	26	(10.0)	30	(12.2)
Baptist	2	(1.3)	3	(1.3)	5	(1.9)	3	(1.2)
Christian Science	--	--	--	--	2	(.8)	--	--
Church of Christ	--	--	--	--	2	(.8)	--	--
Congregational	--	--	--	--	3	(1.2)	1	(.4)
Episcopal	2	(1.3)	4	(1.8)	7	(2.7)	5	(2.0)
LDS (Mormon)	1	(.6)	1	(.4)	1	(.4)	--	--
Lutheran	8	(5.2)	7	(3.1)	12	(4.6)	9	(3.7)
Methodist	1	(.6)	1	(.4)	9	(3.5)	5	(2.0)
Presbyterian	4	(2.6)	--	--	8	(3.1)	7	(2.9)
Unitarian	--	--	--	--	2	(.8)	--	--
Other specified	1	(.6)	--	--	--	--	5	(2.0)
Jewish	3	(1.9)	--	--	2	(.8)	1	(.4)
"Agnostic" or "none"	4	(2.6)	--	--	9	(3.5)	10	(4.1)
Other	3	(1.9)	--	--	3	(1.2)	--	--
Did not respond	22	(14.3)	4	(1.8)	47	(18.1)	18	(7.3)
No data	70	(45.5)	171	(75.3)	52	(20.1)	107	(43.7)
Father's Education:								
Less than high school graduation	5	(3.2)	3	(1.3)	14	(5.4)	14	(5.7)
High school graduation	24	(15.6)	16	(7.0)	47	(18.1)	24	(9.8)
Trade/vocational/business school	4	(2.6)	1	(.4)	8	(3.1)	2	(.8)
Junior or community college	--	--	3	(1.3)	5	(1.9)	3	(1.2)
Less than 4 years at a University	15	(9.7)	14	(6.2)	24	(9.3)	24	(9.8)
Bachelor's degree	22	(14.3)	19	(8.4)	54	(20.8)	32	(13.1)
Some graduate work	5	(3.2)	--	--	5	(1.9)	1	(.4)
Master's degree	--	--	2	(.9)	18	(6.9)	10	(4.1)
Doctorate/post-doctorate	8	(5.2)	5	(2.2)	24	(9.3)	25	(10.2)
No data	71	(46.1)	164	(72.2)	60	(23.2)	110	(44.9)
Father's occupation - Edwards' scale*:								
No response or not working	17	(11.0)	12	(5.3)	22	(8.5)	20	(8.2)
Unskilled workers	--	--	1	(.4)	4	(1.5)	2	(.8)
Semiskilled workers	7	(4.5)	4	(1.8)	7	(2.7)	11	(4.5)
Skilled workers and foremen	13	(8.4)	14	(6.2)	34	(13.1)	26	(10.6)
Clerks and kindred workers	12	(7.8)	3	(1.3)	30	(11.6)	44	(18.0)
Proprietors, managers, officials	15	(9.7)	18	(7.9)	62	(23.9)	7	(2.9)
Professional persons	18	(11.7)	11	(4.8)	38	(14.7)	27	(11.0)
Housewife/unclassified	--	--	--	--	6	(2.3)	--	--
No data	72	(46.8)	164	(72.2)	53	(20.5)	108	(44.1)
(other)	--	--	--	--	3	(1.2)	--	--
Mother's Education:								
Less than high school graduation	2	(1.3)	3	(1.3)	8	(3.1)	12	(4.9)
High school graduation	21	(13.6)	16	(7.0)	67	(25.9)	36	(14.7)
Trade/vocational/business school	6	(3.9)	3	(1.3)	15	(5.8)	14	(5.7)
Junior or community college	2	(1.3)	2	(.9)	4	(1.5)	3	(1.2)
Less than 4 years at a University	15	(9.7)	25	(11.0)	46	(17.8)	26	(10.6)
Bachelor's degree	33	(21.4)	10	(4.4)	49	(18.9)	29	(11.8)
Some graduate work	2	(1.3)	1	(.4)	5	(1.9)	7	(2.9)
Master's degree	--	--	3	(1.3)	6	(2.3)	7	(2.9)
Doctorate/post-doctorate	1	(.6)	--	--	--	--	--	--
No data	72	(46.8)	164	(72.2)	59	(22.8)	111	(45.3)

VARIABLES	FREQUENCY DISTRIBUTION							
	1973 N=154		1974 N=227		1975 N=259		1976 N=245	
	N	(%)	N	(%)	N	(%)	N	(%)
Mother's present occupation - Edwards'*:								
No response or not working	11	(7.1)	3	(1.3)	29	(11.2)	13	(5.3)
Unskilled workers	--	--	3	(1.3)	2	(.8)	3	(1.2)
Semiskilled workers	2	(1.3)	3	(1.3)	7	(2.7)	3	(1.2)
Skilled workers and foremen	8	(5.2)	9	(4.0)	46	(17.8)	19	(7.8)
Clerks and kindred workers	26	(16.9)	19	(8.4)	47	(18.1)	28	(11.4)
Proprietors, managers, officials	1	(.6)	2	(.9)	8	(3.1)	1	(.4)
Professional persons	1	(.6)	2	(.9)	--	--	--	--
Housewife/unclassified	35	(22.7)	21	(9.3)	67	(25.9)	71	(29.0)
No data	70	(45.5)	165	(72.7)	53	(20.5)	107	(43.7)
Mother's earlier occupation - Edwards'*:								
No response or not working	38	(24.7)	7	(3.1)	112	(43.2)	81	(33.1)
Unskilled workers	3	(1.9)	3	(1.3)	4	(1.5)	1	(.4)
Semiskilled workers	4	(2.6)	3	(1.3)	3	(1.2)	5	(2.0)
Skilled workers and foremen	14	(9.1)	9	(4.0)	33	(12.7)	23	(9.4)
Clerks and kindred workers	19	(12.3)	15	(6.6)	42	(16.2)	28	(11.4)
Proprietors, managers, officials	2	(1.3)	--	--	9	(3.5)	--	--
Professional persons	1	(.6)	2	(.9)	1	(.4)	--	--
Housewife/unclassified	--	--	4	(1.8)	1	(.4)	--	--
No data	73	(47.4)	184	(81.1)	54	(20.8)	107	(43.7)
Number of years mother worked:								
0 or no data	109	(70.8)	196	(86.3)	164	(63.3)	192	(78.4)
1-5	12	(7.7)	5	(2.1)	25	(9.5)	12	(4.8)
6-10	12	(7.7)	9	(3.8)	23	(8.7)	20	(8.0)
11-15	8	(5.0)	7	(3.1)	24	(9.3)	15	(6.0)
16-20	7	(4.4)	8	(3.4)	19	(7.4)	3	(1.2)
more than 20	6	(3.9)	2	(.9)	4	(1.5)	3	(1.2)
Number of years mother worked:								
MEAN	11.56		11.58		10.71		9.83	
STD DEV	7.61		5.94		6.56		5.81	
N=	45		31		95		53	
NO DATA	109		196		164		192	
Marital status:								
Single	65	(42.2)	46	(20.3)	182	(70.3)	127	(51.8)
Married	17	(11.0)	18	(7.9)	19	(7.3)	10	(4.1)
Widowed	--	--	1	(.4)	--	--	--	--
Separated	--	--	--	--	1	(.4)	--	--
Divorced	--	--	--	--	2	(.8)	1	(.4)
No data	72	(46.8)	162	(71.4)	55	(21.2)	107	(43.7)
Number of children:								
0 or no data	152	(98.7)	221	(97.4)	248	(95.8)	241	(98.4)
1	--	--	2	(.9)	--	--	1	(.4)
2	1	(.6)	3	(1.3)	6	(2.3)	2	(.8)
3	--	--	--	--	3	(1.2)	1	(.4)
4	--	--	1	(.4)	--	--	--	--
7	1	(.6)	--	--	--	--	--	--
10	--	--	--	--	1	(.4)	--	--
11	--	--	--	--	1	(.4)	--	--
Number of children:								
MEAN	4.50		2.00		3.20		2.80	
STD DEV	3.54		1.10		2.78		.82	
N=	2		6		10		4	
NO DATA	152		221		249		241	
Age of oldest child:								
3 years or under	1	(.6)	2	(.9)	--	--	1	(.4)
5 years or under	--	--	1	(.4)	2	(.8)	--	--
10 years or under	--	--	1	(.4)	4	(1.5)	1	(.4)
15 years or under	--	--	--	--	3	(1.2)	1	(.4)
20 years or under	1	(.6)	--	--	1	(.4)	--	--
30 years or under	--	--	1	(.4)	--	--	1	(.4)
33 years or under	--	--	--	--	1	(.4)	--	--
no children or no data	152	(98.7)	221	(97.4)	248	(95.8)	241	(98.4)
Present living arrangements:								
House	31	(20.1)	26	(11.5)	1	(.4)	39	(15.9)
Dormitory, etc.	8	(5.2)	9	(4.0)	66	(25.5)	64	(26.1)
Rooming house or apartment	30	(19.5)	24	(10.6)	67	(25.9)	28	(11.4)
Other	1	(.6)	1	(.4)	2	(.8)	1	(.4)
No data	84	(54.5)	167	(73.6)	123	(47.5)	113	(46.1)
Living with whom:								
Parents or other family members	17	(11.0)	11	(4.8)	43	(16.6)	27	(11.0)
Spouse	17	(11.0)	18	(7.9)	20	(7.7)	9	(3.7)
Non relatives	39	(25.3)	23	(10.1)	94	(36.3)	80	(32.7)
Other	7	(4.5)	6	(2.6)	4	(1.5)	14	(5.7)
No data	74	(48.1)	169	(74.4)	98	(37.8)	115	(46.9)

VARIABLES	FREQUENCY DISTRIBUTION			
	1973 N=154	1974 N=227	1975 N=259	1976 N=245
	N (%)	N (%)	N (%)	N (%)
Source of income:				
Parents' support	45 (29.2)	34 (15.0)	132 (51.0)	95 (38.8)
Own savings	49 (31.8)	26 (11.5)	124 (47.9)	85 (34.7)
Spouse's support	19 (12.3)	19 (8.4)	22 (8.5)	9 (3.7)
Own earnings	57 (37.0)	37 (16.3)	128 (49.4)	83 (33.9)
Scholarships or grants	31 (20.1)	12 (5.3)	59 (22.8)	29 (11.8)
Social Security benefits	3 (1.9)	7 (3.1)	11 (4.2)	7 (2.9)
Loans	28 (18.2)	13 (5.7)	55 (21.2)	29 (11.8)
VA or GI benefits	9 (5.8)	2 (.9)	5 (1.9)	5 (2.0)
Other	4 (2.6)	5 (2.2)	3 (1.2)	4 (1.6)
Plan to work during the academic year:				
Yes	31 (20.1)	23 (10.1)	105 (40.5)	67 (27.3)
No	48 (31.2)	35 (15.4)	98 (37.8)	65 (26.5)
No data	75 (48.7)	169 (74.4)	56 (21.6)	113 (46.1)
Number of hours per week:				
0/no response/no data	109 (70.8)	194 (85.5)	162 (62.5)	184 (75.1)
1-5 hours	1 (.6)	2 (.9)	8 (3.1)	2 (.8)
6-10 hours	9 (5.8)	4 (1.8)	19 (7.3)	17 (6.9)
11-15 hours	6 (3.9)	3 (1.3)	22 (8.5)	12 (4.9)
16-20 hours	21 (13.6)	10 (4.4)	36 (13.9)	19 (7.8)
21-25 hours	4 (2.6)	2 (.9)	10 (3.9)	4 (1.6)
26-30 hours	-- --	-- --	1 (.4)	3 (1.2)
31-35 hours	1 (.6)	-- --	-- --	1 (.4)
36-40 hours	3 (1.9)	12 (5.3)	1 (.4)	3 (1.2)
Type of work - Edwards' scale*:				
No response/not working	25 (16.2)	5 (2.2)	108 (41.7)	-- --
Unskilled workers	2 (1.3)	4 (1.8)	13 (5.0)	6 (2.4)
Semiskilled workers	13 (8.4)	5 (2.2)	42 (16.2)	29 (11.8)
Skilled workers and foremen	17 (11.0)	4 (1.8)	26 (10.0)	19 (7.8)
Clerks and kindred workers	14 (9.1)	20 (8.8)	9 (3.5)	3 (1.2)
Proprietors, managers, officials	-- --	-- --	2 (.8)	-- --
Professional persons	-- --	-- --	1 (.4)	-- --
Housewife/unclassified	-- --	1 (.4)	1 (.4)	-- --
No data	83 (53.9)	188 (82.8)	57 (22.0)	188 (76.7)
Amount of money available to family unit:				
Don't know/no response	3 (1.9)	1 (.4)	11 (4.2)	7 (2.9)
Under $3,000	14 (9.1)	5 (2.2)	41 (15.8)	19 (7.8)
$3,001-5,000	12 (7.8)	6 (2.6)	19 (7.3)	8 (3.3)
$5,001-7,000	8 (5.2)	11 (4.8)	9 (3.5)	7 (2.9)
$7,001-10,000	11 (7.1)	7 (3.1)	30 (11.6)	11 (4.5)
$10,001-15,000	15 (9.7)	12 (5.3)	32 (12.4)	19 (7.8)
$15,001-20,000	9 (5.8)	8 (3.5)	24 (9.3)	32 (13.1)
over $20,000	10 (6.5)	13 (5.7)	21 (8.1)	29 (11.8)
No data	72 (46.8)	164 (72.2)	72 (27.8)	113 (46.1)
Spouse's occupation - Edwards' scale*:				
No response or not working	71 (46.1)	14 (6.2)	184 (71.0)	-- --
Unskilled workers	-- --	-- --	3 (1.2)	-- --
Semiskilled workers	-- --	1 (.4)	-- --	2 (.8)
Skilled workers and foremen	4 (2.6)	4 (1.8)	2 (.8)	4 (1.6)
Clerks and kindred workers	1 (.6)	5 (2.2)	5 (1.9)	5 (2.0)
Proprietors, managers, officials	5 (3.2)	1 (.4)	4 (1.5)	-- --
Professional persons	1 (.6)	3 (1.3)	6 (2.3)	-- --
Housewife/unclassified	-- --	-- --	1 (.4)	-- --
No data	72 (46.8)	199 (87.7)	54 (20.8)	234 (95.5)
Number of awards or honors:				
MEAN	2.80	2.59	2.52	2.80
STD DEV	1.91	1.55	1.61	1.87
N=	55	41	129	102
NO DATA	99	186	130	143
Number of volunteer activities:				
MEAN	2.12	2.11	1.79	1.90
STD DEV	1.12	1.18	.95	1.10
N=	57	38	115	100
NO DATA	97	189	144	145
Number of jobs held:				
MEAN	3.62	3.63	3.15	3.16
STD DEV	1.81	1.84	1.54	1.60
N=	81	62	185	135
NO DATA	73	165	74	110
Held a paid nursing position:				
Nursing experience	71 (46.1)	28 (12.3)	149 (57.5)	30 (12.2)
No nursing experience	12 (7.8)	31 (13.7)	57 (22.0)	108 (44.1)
No data	71 (46.1)	168 (74.0)	53 (20.5)	107 (43.7)

APPENDIX R

LITERATURE REVIEW AND HYPOTHESIS TO BE TESTED FOR POI,

MYERS-BRIGGS, AI AND CCI DATA PREPARED BY DR. VIVIAN WOLF-WILETS

The Personal Orientation Inventory (POI) is a 150 two-choice comparative value and behavior judgments. The items are scored twice; first for two basic scales, inner directed support (127 items) and time competence (23 items). They are scored a second time for ten subscales each of which measures a conceptually important element of self-actualization (Shostrom, 1966).

Interpretation can be in terms of norms, personality categories or item by item for individual counseling.

Scoring Categories

Ratio Scores

TIME RATIO--Time incompetence/time competence (Ti/Tc) measures the degree to which one is "present" oriented. The time competent individual lives in the present as contrasted with living in the past or future. The past and future are considered in the present. The time competent person lives primarily in the present with full awareness, contact, and full feeling reactivity, while the time incompetent person lives primarily in the past, with guilts, regrets, and resentments, and/or in the future, with idealized goals, plans, expections, predictions, and fears. These concepts of time orientation are based on May, et al (1958) and Perles' (1947, 1951) views on time orientation.

SUPPORT RATIO--Other/Inner (O/I) measures whether an individual's mode of reaction is characteristically "self" oriented or "other" oriented. Inner, or self, directed individuals are guided primarily by internalized principles and motivations while other directed persons are to a great extent influenced by their peer group or other external forces. These concepts are based on Reisman's (1950) concepts of inner- or other-directedness.

The Ratio scores and sub-scales are summarized in Figure 1 (Shostrom, 1966, p. 6). The concept of self-actualization is based on the theory by Maslow (1954, 1962).

ADMINISTRATION

The POI is self-administered and the computer scoring sheets were used. Although the test is not timed the average time for administration is 30 minutes.

SCORING

Raw scores can be easily converted into standard scores with a mean of 50 and a standard deviation of 10 with about 95 percent of the cases falling within two standard deviations. The standard scores are set so that the following are the extremes (Shostrom, 1966, p.10).

		VALUING		FEELING		SELF-PERCEPTION		SYNERGISTIC AWARENESS		INTERPERSONAL SENSITIVITY	
TIME COMPETENT Lives in the present	INNER-DIRECTED Independent, self-supportive	SELF-ACTUALIZING VALUE Holds values of self-actualizing people	EXISTENTIALITY Flexible in application of values	FEELING REACTIVITY Sensitive to own needs and feelings	SPONTANEITY Freely expresses feelings behaviorally	SELF-REGARD Has high self-worth	SELF-ACCEPTANCE Accepting of self in spite of weaknesses	NATURE OF MAN, CONSTRUCTIVE Sees man as essentially good	SYNERGY Sees opposites of life as meaningfully related	ACCEPTANCE OF AGGRESSION Accepts feelings of anger or aggression	CAPACITY FOR INTIMATE CONTACT Has warm interpersonal relationships
T_c	I	SAV	Ex	Fr	S	Sr	Sa	Nc	Sy	A	C

TIME INCOMPETENT Lives in the past or future	OTHER DIRECTED Dependent, seeks support of others' views	Rejects values of self actualizing people	Rigid in application of values	Insensitive to own needs and feelings	Fearful of expressing feelings behaviorally	Has low self-worth	Unable to accept self with weaknesses	Sees man as essentially evil	Sees opposites of life as antagonistic	Denies feelings of anger or aggression	Has difficulty with warm interpersonal relations

Bloxom (1970, p. 291), when doing a review of the POI for the Seventh Mental Measurement Yearbook, points out that test user should base his interpretations of the POI only on the standard score profiles and not on the time ratio and support ratio scores which are suggested by the manual as providing information above and beyond the profiles. This is suggested because the ratio scores are completely determined by and positively related to the Tc and I scale scores, and no data is given to show the validity of the ratio scores.

Number of Items	Scale Number	Symbol	Description
I. Ratio Scores			
23	1/2	T_I/T_C	TIME RATIO Time Incompetence/ Time Competence - measures degree to which one is "present" oriented
127	3/4	O/I	SUPPORT RATIO Other/Inner - measures whether reactivity orientation is basically toward others or self
II. Sub-Scales			
26	5	SAV	SELF-ACTUALIZING VALUE Measures affirmation of a primary value of self-actualizing people
32	6	Ex	EXISTENTIALITY Measures ability to situationally or existentially react without rigid adherence to principles
23	7	Fr	FEELING REACTIVITY Measures sensitivity of responsiveness to one's own needs and feelings
18	8	S	SPONTANEITY Measures freedom to react spontaneously or to be oneself
16	9	Sr	SELF REGARD Measures affirmation of self because of worth or strength
26	10	Sa	SELF ACCEPTANCE Measures affirmation or acceptance of self in spite of weaknesses or deficiencies
16	11	Nc	NATURE OF MAN Measures degree of the constructive view of the nature of man, masculinity, femininity
9	12	Sy	SYNERGY Measures ability to be synergistic, to transcend dichotomies
25	13	A	ACCEPTANCE OF AGGRESSION Measures ability to accept one's natural aggressiveness as opposed to defensiveness, denial, and repression of aggression
28	14	C	CAPACITY FOR INTIMATE CONTACT Measures ability to develop contactful intimate relationships with other human beings, unencumbered by expectations and obligations

Figure 1. Scoring Categories for the Personal Orientation Inventory.

Intercorrelations of the Scales

Knapp (1965, 29, pp. 168-172) did an intercorrelation of the scales and found that some of the subscales correlated .71 with each other; therefore, the independent interpretation of each subscale may not be as meaningful as one would desire. The two major constructs of inner-directed and time competent are correlated at the .49 level. Many of the scales with high statistical correlations are conceptually related also.

Construct and Concurrent Validity Studies

Shostrum (1966) and Knapp (1971) both present excellent summaries of the construct and concurrent validity studies done in relation to the POI through 1971. The following types of findings have tended to substantiate the validity of the instrument:

1. The inventory was able to separate clinically judged self-actualized and non-self actualized groups at a significant level on 11 of the 12 scales (Shostrom, 1966, p. 25).

2. The inventory was able to separate patients who had just entered therapy from those who had been in therapy for an average of 26.6 months at the .01 level of significance on all twelve scales (Shostrom & Knapp, 1966, pp. 193-202).

3. Alcoholic patients and their spouses showed a significantly lower profile than the norming groups on eleven of the twelve scales (Zascaria & Weir, 1967, 71, pp. 151-157).

4. When high school students were asked to rate their "teacher's concern for students" the POI significantly separated teachers rated high from low for grades 7, 8, 9, and 10, but not grades 11 and 12 (Murray, 1966).

5. Hospitalized psychiatric patients were significantly lower on all POI scales than normal norming groups (Fox, Knapp, & Michael, 1968, 28, pp. 565-569).

6. When counseling staff member of a NDEA Guidance Institute rated

counselors in relation to their level of self-actualization 9 out of 12 scales on the POI's correlated significantly with high scores on the POI's taken by the counselors (McClain, 1970, 21, pp. 372-377).

7. The correlation of the relationship between self-actualization of counselors, as measured by the POI and their ability to communicate to the client the facilitative therapeutic conditions of empathic understanding, respect or positive regard, and facilitative genuineness as rated by expert judges was significant on many of the POI scales with self-actualizing values, feeling reactivity and inner-direction having the highest coorelations (Foulds, 1969a, 47, pp. 762-766; 1969b, 9, pp. 87-92; 1969c, 16, pp. 132-136).

8. Studies of sensitivity training and marathon group sessions have tended to show significant increases for participants on POI scales. This seems to be especially true if the participants had low POI scores at the beginning of the sessions (Culbert, Clark, & Bobele, 1968, 15, pp. 53-57; Flanders, 1969; Guinan & Foulds, 1970, 17, pp. 145-149; Rueveni, Swift, & Bell, 1969, 5, pp. 600-601; Trueblood & McHolland, 1971).

9. When individuals have been instructed to attempt to take the POI in a manner which they feel would give a good impression, the data have tended to support the conclusion that POI responses are not easily distorted in a predictable positive direction (Knapp, 1971, pp. 8-10; Shostrom, 1966, pp. 22-24).

Since the sample size and the rigor of the design of these studies vary, the overall general trend of support of the construct validity and concurrent validity seem more important than each individual study. These studies in general do seem to support the construct and concurrent validity. Since they relate only generally to this study they have been only mentioned and studies relating directly to the present study will be reviewed in more detail.

A serious criticism of the item structure is also directly a serious criticism of the validity of the items. Coan (Buros, 1970, p. 293) in his review of the instrument in the Seventh Mental Measurement Yearbook points out that statements are frequently expressed in an absolute or categorical form, and the testee is frequently confronted with a demand to choose between two extremes, neither of which comes close to describing his attitudes or life situation. This means that the item structure may underline the validity of the instrument to get at the true view of the subject. Since all subjects are faced with the same items the effect may be given to all subjects, but may be different for each subject depending on how differentiated his view is in relation to particular items.

CORRELATIONAL STUDIES WITH OTHER PSYCHOLOGICAL TESTS

Studies which examined the intercorrelation of the POI with other tests have found the following:

1. For a group of college students the Eysenck Personality Inventory (EPI) dimension of Neuroticism-Stability was negatively correlated with all POI scales. These negative correlations between measure of self-actualization and the neuroticism construct are supportive of construct that high POI scores are characteristic of healthy individuals (Knapp, 1965).

2. The POI variables and the Guilford-Zimmerman Temperament Survey and the Sixteen Personality Factor Questionnaire were correlated at low levels of magnitude which seems to indicate they are measuring different aspects of personality. Inner Direction of the POI was significantly correlated with 16 PF scales which depict the self-actualizing individual as relatively more assertive, happy-go-lucky, venturesome, trusting, and self-assured (16PF scales) and relaxed, active, ascendant, sociable, emotionally stable, objective and tolerant on the G-Z (Meredith, 1967, p. 1).

3. Positive correlations were found between the POI support scales and the Edwards, Personal Preference Survey scales of autonomy and heterosexuality and negative correlations between the POI and Abasement and Order (Grossack, Armstrong & Lussiev, 1966, p. 87). In a male sample, compared to a female sample EPPS Autonomy and Abasement scales had a greater relationship to high POI scores. Five POI scales were negatively related to Abasement for the male sample. While in the female sample four POI scales were significantly and positively related to change and four were negatively related to order (LeMay & Damm, 1969, 24, p. 834).

4. High significant correlations between the Gordon Personal Inventory Personal Relations scale and the POI scales of Nature of Man, Constructive and Self-Actualizing Value. Five of the nine significant correlations were with the GPI Original Thinking Scale. This is consistent with the view that the self-actualized person is creative (Braun & Asta, 1969, 72, pp. 159-164).

5. Several studies of the POI in relation to the MMPI are reviewed by Shostrom (1966, pp. 28-30). Since the MMPI scales are related to pathology categories and the relationships found were complex, these studies will not be reviewed here.

FACTORIAL STUDIES OF THE POI

Theoretical claims about the dimensions of a test can be numerous. If the dimensions of a test are independent they should appear as independent factors when the test is factor analyzed. Shostrum does not claim that the dimensions of the POI are independent. The lack of independence of the scale scores is clearly evident by the fact that the same items are included in several scales. It is of interest to know how the items do group on statistical analysis and how many factors seem to account for what proportion of the variance of the scores obtained on the instrument. Knapp (1971, pp. 11-12) summarizes some efforts in factoral analysis. The most extensive study an

and more recent study was done by Tosi and Hoffman (1972 (Spring) 12, 1, pp. 86-93). When 132 Human Growth and Development students at Western Michigan University were administered the POI and the factors with eigenvalues greater than unity were rotated orthogonally using the Verimax algorithm three factors were identified. Factor one, termed Extroversion by Tosi and Hoffman, seemed to describe an extroverted, self-assured person who was not hesitant to act on his feelings. The scores with the highest loading on the factor, were Acceptance of Aggression, Spontaneity, and Feeling Reactivity, present a clear picture of the personality being described: acceptant and expressive of feelings, including feelings of aggression which may not be socially rewarded. Factor I accounted for roughly 39 percent of the variance in the total POI.

The second factor identified was termed Open-Mindedness. It included items from the Nature of Man and Time Competence as well as Synergy scales. This factor seemed to be related to the ability to see natural relations between opposites and describe a personality which takes an optimistic and constructive approach to life and is present oriented and a generally open personality. Factor II accounted for approximately 18 percent of the variance.

A third factor which was identified was labeled Existential Non-Conformity. This factor had high loading for the scales of Existentiality, Self-Acceptance, and Capacity for Intimate Contact. It would appear to be related to a personality which acts freely on its own rules, demonstrates an independence of eternal values and readily establishes meaningful contact with others. Factor III accounted for 20 percent of the variance.

All three factors accounted for approximately 72 percent of the total variance of the POI, and a minimum of 54 percent and a maximum of 96 percent of the variance of any specific subscale as delineated by Shostrom (Tosi & Hoffman, 1972, pp. 89-91). From this analysis it would seem important that a factor

structure be examined since it may represent more observed variance than the theoretical scales described by Shostrom.

RELIABILITY

Klavetter and Mogar (1967) did a study of the test retest reliability of the POI when administered to 48 undergraduate college students a week apart. The reliability coefficients for the major scales of Time Competence and Inner-Direction were .71 and .84 respectively, and the coefficients for the subscales range from .55 to .85. Only three subscales had coefficients that were below .70. They were Acceptance of Aggression (.55), Nature of Man (.66), and Feeling Reactivity (.69).

ACHIEVEMENT AND SOCIAL VARIABLES

Knapp (1971, p. 6) summarizes the findings when self-actualization has been compared to Grade Point Average (GPA) by saying, "In general, correlations computed between POI scales and the grade-point-average criterion have been positive and of comparitive low magnitude although the conclusions reached in different studies seem to vary with the type of sample employed." One study that seems to have important implications for the design and analysis of data in relation to the POI and GPA is a study by LeMay (1969). LeMay used a design based on the one used by Goodstein and Heilbrun (1962) which consisted of correlating scores on a personality scale with GPA while holding intellectual ability constant through the use of partial correlation. In the design the sample was divided into low, middle, and high ability groups on the basis of intellectual ability. With this design Goodstein and Heilbrun (1962) found a significantrelationship between achievement and personality factors for the middle ability group but not for the high or low ability group.

LeMay (1969) used a sample of 205 males and 206 females, undergraduate freshmen psychology students at the University of Oregon. The students had

taken the scholastic aptitude test prior to admiasion to the University. The POI was administered during the first week of the term and at the conclusion of the term the GPA was calculated for each student for all courses taken. Correlations between the Inner Support Scale (used as an indicator of self-actualization) and GPA with (SAT) scores partialed out, were not significant for either the male or female samples among high ability or the low ability subgroups. For the middle ability students, significant correlations of -.25 ($p<.05$) and -.30 ($p<.01$) for the male and female samples respectively were obtained. This finding is seen as supporting the theory that academic success of bright and dull students may be determined more by intellectual factors than is the case of the average ability students. There does not seem to be a clear explanation as to why the correlations are negative. Leib and Snyder (1968) felt that these two concepts, GPA and personality dimensions, are not directly related but are related secondarily through separate relationships with other variables. This explanation seems rather unacceptable since there is a <u>significant</u> correlation which is negative. Might it be possible that in the middle range of ability you have to let others direct you in order to be able to do the things that will lead to a high GPA, but if you are not very smart and you keep trying to direct yourself you will not succeed in school work as well. This may be related to a variable like cooperation or following directions. Whatever the explanation for the finding it seems important that scholastic aptitude be taken into account when looking at the interrelationship of GPA and the I scale.

Other social variables that may be related to high scores on the POI were studied by Gibb (1968). Gibb used an exploratory cross-sectional study which was designed to identify variables in relation to the family and child rearing which might be related to self-actualization as measured by the POI. The

sample consisted of 250 first semester juniors (97 males and 153 females) attending a large midwestern state university. In relation to his findings Gibb states:

In summarizing the most significant findings it would seem that those students who were higher on a measure of self-actualization in this sample were:

1. From homes whose parents had finished high school and had additional formal education.
2. From families with 1-3 children
3. From families whose mothers had worked full-time
4. From families providing little or no formal religious training
5. Presently not involved in active religious participation

Those variable sorts depicting few or no significant mean differences included:

1. Those students coming from a broken or intact home
2. Those students coming from a nuclear or extended home
3. Amount of time the father traveled away from the home
4. Religious affiliation (Gibb, 1968, pp. 52-53)

Gibb's exploratory study has identified variables which may influence performance on the POI and should be taken into account when examining performance on the POI. One might also raise the question looking at these effects whether the variables might also effect the ability of the educational activities to modify characteristics of students as reflected in their POI scores. Some of the variables might have more profound effects in structuring personalities so they will not change or they will change at a faster or slower rate when provided with certain educational treatments.

La Bach (1969) tested a sample of 167 senior and 241 freshmen at a small liberal arts college in Ohio. When a matrix of product-moment correlations

were done between scores on the Educational Testing Service College Student Questionnaires (CSQ), SAT-V and M scores and the POI scales Tc and I, low correlations which were statistically significant were found. The POI scales Tc and I were positively related to age, year in college, marital status, satisfaction with social life, a satisfaction with college scale, and a cultural sophistication scale. In addition the POI I scale was positively related to the number of hours worked per week, infrequent attendance at religious services, attitudes of family and peer independence, political liberalism, identification with an academic or nonconformist subculture; and negatively related to identification with a vocational subculture. In addition, no significant relationship was found between extracurricular involvement and either time competence or inner-directedness, but six POI subscales showed positive correlations with this factor. SAT-V scores were related to self-actualization positively for the freshmen sample but negatively for the senior sample while the SAT-M scores were not significantly related to either inner-directedness or time competence. Grade-point average was not significantly related to any measure of self-actualization. Seniors were significantly more self-actualizing than freshmen on both major scales and all subscales of the POI except Existentiality and Acceptance of Aggression.

A number of studies of nurses and nursing students have used the POI. Kerchner (1968) obtained POI responses from 34 of the 41 public health nursing supervisors in 12 public health agencies. The public health nursing supervisors' mean scores were above the standard scores identified by Shostrum as characterizing the self-actualized individual. Supervisors in the 11-20 year category of length of supervision scored the highest on seven dimensions of self-actualization, namely, inner-directedness, time competence, existentiality, self-acceptance, synergy, capacity for intimate contact and spontaneity.

Supervisors with over 20 years length of time in supervision were below the Shostrom self-actualizing means on: existentiality, feeling reactivity, nature of man-constructive, synergy, acceptance of aggression, and capacity for intimate contact. Those supervisors with 1-5 years experience did not receive any mean scores that were higher than scores received by those supervisors in other categories (Kerchner, 1968, p. 55). Supervisors with master's degrees in supervision and or administration were highest on ten areas which were: inner-directedness, time competence, self-actualizing values, existentiality, feeling reactivity, spontaneity, self-acceptance synergy, acceptance of aggression and the capacity for intimate contact (Kerchner, p. 56). When the age of the supervisor was examined, supervisors 26-36 years of age scored the highest in the area of time competence. Supervisors 36-45 years of age received the highest scores on the four dimensions of feeling reactivity, self-regard, synergy, and acceptance of aggression. The supervisors who were 46 years of age and over received the greatest number of high mean scores in comparison with the other two groups. Their high scores were received on the dimension of inner-directedness, self-actualizing values, existentiality, spontaneity, and self-acceptance (Kerchner, 1968, p. 58).

Gunter (1969) administered the POI to 109 sophomore nursing students at a midwestern university and contrast these findings with data from 792 female college freshmen at a large midwest college. The nursing sophomores made significantly higher scores than the freshmen on 8 of the 12 POI scales. These eight scales were: inner-directedness, existentiality, feeling reactivity, spontaneity, self-acceptance, synergy, acceptance of aggression, and capacity for intimate contact. When the nursing students' scores were compared with the norming population presented by Shostrom the nursing students made significantly lower scores than the norming population on all scales except self-actualizing values and the constructive nature of man (Gunter, 1969, p. 63).

Shimmin (1969) administered the POI to 16 baccalaureate educated public health nurses and compared her finding with the findings of Gunter and Kerchner which were just described. The findings indicated that baccalaureate public health nurses with five years experience or less had above the standard scores identified by Shostrom on 7 of the 12 dimensions. These dimensions were inner-directed, feeling reactivity, spontaneity, self-regard, self-acceptance, nature of man, and acceptance of aggression. The other scale scores fell just below the average. Comparison of the public health nurses with student nurses revealed that the public health nurses' scores were significantly higher for the dimensions of inner-direction, self-regard, existentiality, self-acceptance, nature of man, and capacity for intimate contact. When the 16 public health nurses were compared with the group of nursing supervisors which were characterized as self-actualizing in Kerchner's sample, the public health supervisors were significantly higher on the dimensions of time-competence, self-actualizing values and self-regard. Another interesting finding in the study was that the eleven of the sample of 16 public health nurses who were in the age range of 25 years or less all had scores that were within the levels considered by Shostrom to be self-actualizing. In contrast the mean scores for the five remaining nurses who were in the age range 26 years or older fell within the non-self-actualized level on all dimensions except the nature of man scale. It is not clear why supervisors who were older in Kerchner's study were on the whole more self-actualized and public health nurses who were older in Shimmin's study were on the whole less self-actualized.

Rubin and O'Mahoney (1972) tested 42 freshmen students at a three year hopsital nurses' training program in a large midwestern city. The students were between 17-33 years of age, predominately female, and 29 white and 13 black.

The independent variables in the study were: (a) aptitude/achievement as measured by the National League for Nursing and Guidance Examination (PNG), California Achievement Test Battery, American College Testing Program (ACT) Iowa Science Reading Test, Rank in High School Class; (b) Personality--Personality Orientation Inventory, Self-disclosure Questionnaire (SDQ) Repression-Sensitization Scale (RS); (c) Demographic Information--age, race, and sex.

The three dependent variables were academic success (in terms of grade point average), academic failure, and non-academic withdrawal. When product moment correlations of the 29 independent variables and the dependent variables were computed, almost all the independent variables relating to achievement were significant at the .05 level when correlated with GPA. The exceptions were rank in high school and ACT English scores. Age and race correlated significantly at .346 and -.298 respectively with GPA. The POI scales of time competence and time ratio and self disclosure correlated .289, .279, and .373, all significant. Those variables correlating significantly with academic failure were ACT math -.287, ACT social studies -.389, ACT Natural Science -.278, ACT Composite -.440, California Total Reading -.559, Race .361, and Iowa Science Reading -.420. Those variables correlating significantly with Non-academic withdrawal are California Total Math .290 and Race -.303 (p.441). In these correlations failure must have been weighted positively and success negatively while whites were weighted negatively and withdrawal positively even though the authors do not state this, they do state that it was the white students who were the most likely to withdraw for nonacademic reasons and the black student for academic failure.

When a multiple regression analysis was performed academic success produced a multiple R of .69 with the variables: ACT Composite, Age, and California Reading score. Academic failure produced a multiple R of .61 with the variables California reading score and inappropriate defenses as measured

by the repression-sensitization test. Race was correlated .31 with the non-academic withdrawal criterion (p. 440).

One pattern that emerged that seem enlightening was the significant inter-relationship of the POI Scale self-disclosure, inappropriate defenses as measured by the extremes on the repression/sensitization scale and attrition/success. It is speculated by the authors that this may be due to a possible pattern of a self-isolated individual who reacts to crisis inappropriately and, cutting himself off from available sources of support, facils or withdraws.

Reekie (1969) raised two major questions in relation to the problem of predicting success in nursing (criterion behaviors) by using personality factors and biographical characteristics.

1. What is the relationship between selected personality factors and biographical data with the criterion behaviors of "successful" nurses from baccalaureate programs in professional nursing?
2. Can these variables (personality and biographical) appreciably increase the accuracy of predicting success in nursing so that a school of nursing, selecting its applicants by these measures, may find this a feasible and effective approach (p. 9)?

In order to answer these questions Reekie did a descriptive exploratory study with the following purposes: her major purpose was to measure the degree of relationship existing between the personality factor scores and measurable biographical characteristics with the criterion measure of success in professional nursing. Other related objectives of the study were: (a) to develop an empirically derived Clinical Nursing Rating Scale (CNRS); (b) to set develop a theoretical model for the "Personality-Nursing Behavior Construct of the Nurse;" (c) to analyze the biographical data which may identify additional characteristics of the nurses used in the study.

In order to carry out these purposes a sample of 158 beginning professional nursing seniors nearing graduation or graduates just beginning practice were studied. These graduates were from six schools. Schools one through five (N=79) graduated in 1968 and school six (N=79) graduated in 1969.

After developing a model of the "Personality-Nursing Behavior Construct" Reekie selected the Myers Briggs Type Indicator and Shostrom's Personality Orientation Inventory as personality tests that were already developed that most adequately measured major dimensions needed to be the good nurse. For the three criterion measure of success she selected GPA, State Board Examination Scores, and ratings received on the Clinical Nursing Rating Scale that she developed.

The Clinical Rating Scale was developed by reviewing the literature between 1952 and 1968 and delineating the traits or behaviors that were found in the literature as characterizing the good nurse. After these were refined to 65 by a panel they were then given to another panel of 100 nursing experts who were asked to Q sort the behaviors as to their order of importance. The highest rated 25 items were then put into a rating scale. The Clinical Rating Scale was sent to 875 nurse colleagues, instructors, head nurses or supervisors where the students were working or to nurses who knew the clinical performance of the subjects while they were students. A return of 557 ratings were obtained. No reliability study of the Clinical Rating Scale was done.

Analysis of the results indicated the following. In relation to the first question raised by Reekie the personality factors of Extraversion-Introversion (E-I), Sensing-Intuition (S-N) scales, and Thinking-Feeling Scale (T-F) of the Myers Briggs Type Indicator correlated best with the criterion measures of nursing. In relation to the criterion of GPA the (E-I) scales was significantly correlated with the Biological Science GPA (.18). The Sensing Intuition scale (S-N) was significantly correlated with total college GPA (.27),

freshmen GPA (.20), sophomore GPA (.19), total nursing GPA (.23), upper division clinical nursing GPA (.23), lower division nursing GPA (.20), and Social Science GPA (.26).

In relation to the Thinking or Feeling Scale and the Criterion of GPA the following were significant: freshman GPA (.18), sophomore GPA (.16), physical science GPA (.18), and social science GPA (.22).

In relation to the criterion of State Board Examinations the Sensing-Intuition scales were significantly correlated with medical (.17), obstetrics (.27), pediatrics (.27), and psychiatric (.21) scores.

In relation to the criterion of Clinical Nursing Rating Scale the Extraversion-Introversion scale was significantly related to the intellectual scale (.18), the Technical-Professional scale (.20), and the Management-Leadership Scale (.22). The Sensing-Intuition (S-N) Scale was significantly correlated with the Intellectual Scale (.22), the Technical Professional Scale (.22), the Management-Leadership Scale (.23), and the composite scale (.22). The (E-I) scale significantly correlates with the Intellectual (.18), the Technical-Professional (.20), and the Management-Leadership Scale of the Clinical Nursing Rating Scale. The T-F scale significantly correlated with the Composite scale (.16) of the Clinical Nursing Rating Scale.

Only two scales of the POI were significantly correlated with the criterion. The synergy scale was significantly correlated with upper division clinical nursing GPA (.19) and the Capacity for Intimate Contact scale was significantly correlated with the Inter-Personal scale (.16) of the Clinical Nursing Rating Scale (Reekie, p. 85).

Biographical variables that correlated with these personality tests were the number of sibling correlated significantly with the MBTI (E-I) scale (.20), the Father's and Mother's Educational Level correlated significantly with the MBTI scale (S-N) (.20) and (.31) respectively, and the MBTI T-F scale

correlated significantly (.20) with the age of the subject.

The students profiled toward the Extraversion, Sensing and Feeling types on the Myers-Brigg Type Indicator. The data seemed to lend some support to the idea that the personality constructs were related to the criterion of nursing success, but the level of correlation indicated that neither the personality factors nor the biographical characteristics would serve as effective and feasible predictor variables alone.

When the Clinical Nursing Rating Scale was factor analyzed one major factor emerged which the author labeled a "general ability factor in nursing." The subscales of the Clinical Nursing Rating Scale were then seen as being less appropriate than the composite score. This finding would also seem to call into question the use of the author's term that she felt she was developing a taxonomy of nursing behaviors since a taxonomy requires different levels which is not consistent with the finding of only one factor.

The best early predictors of success in nursing were the early academic measures. The sophomore, freshman and biological sciences GPA's correlated with total college GPA at the following levels respectively (.88), (.75), (.81) (Reekie, pp. 204, 109). The sophomore, freshman, and biological sciences GPA's also correlated best with the state board examination scores, and the composite and intellectual scales on the Clinical Rating Scale. Unfortunately, the computer print-out xeroxed into the dissertation is so light that these figures are not readable. The finding of the importance of the sophomore GPA is comparable with the result of research reported by Brandt (1966) and Tjelta (1965).

The POI Scales fall well within the "normal range" for self-actualized subjects and higher than the sophomores reported in the study by Gunter 1969 (Reekie, p. 117). These personality data, achievement data and biographical data provide a data source against which University of Washington student classes

can be compared to look at trends in the changes of student characteristics.

Rosendahl (1973) did a study to determine whether a teacher-adult learner relationship perceived as emphatic and/or nonpossessively warm, and/or genuine by an adult learner fosters change toward inner-directed support, time competence and levels of self-actualization. The sample was 31 out of a class of 100 sophomore female students enrolled in a private New England University. The testing started at the beginning of the second semester and each subject completed the POI as a pretest and took the Relationship Questionnaire-Form B. This Relationship Questionnaire is only part of the Truax and Carkhuff Scale and includes the areas of empathic, nonpossessively warm, and genuine relationships. The Relationship Questionnaire was used to rate the characteristics of the clinical teachers teaching in formal classes and in laboratory experiences. After the semester the POI was again administered to the students as a post-test. A multiple regression analysis indicated a student's gain on inner directedness on the POI was significantly related to a high rating of their clinical teachers on the Relationship Questionnaire (p. 256). The relationship between the time competence scale of the POI and the rating of the clinical teachers was not significant.

Mealey and Peterson (1974) gave the POI to 39 senior diploma nursing students before and after their psychiatric nursing course which was designed to help the student develop as an individual and increase in self-knowledge as well as teaching some of the traditional subject content. The students showed a significant improvement on the inner directed scale toward self-actualization. The time competence scale scores were not significantly improved even though they and the other 10 categories moved in the direction of an individual who is more self-actualized. All the POI scores were slightly below the Shostrom profile of the self-actualized person before the course began. By the end of the course all the mean scores were above the Shostrom norms except the feeling

reactivity and feeling spontaneity scale. The authors cite that their findings seem to be consistent with a trend in the nursing literature that beginning students as studied by Gunter (1969) and Green (1967) show profiles on the POI well below the norms while these senior students and Shimmin's (1969) study of public health nurses show scores very close to the norms.

White (1975) describes the types of measures that are being used to evaluate the effect of nurse practitioner programs. The article delineates criteria (in this case, overall areas) that might be used to provide input for evaluating the practitioner programs. She calls for the delineation of theories that guide the research and suggests that theories such as those set forth by Robert White (1963) might be helpful in constructing frameworks to guide the research. Three sets of data comparing scores of nurse practitioner students chosen by the faculty at the University of California San Francisco with: (a) scores of second year nursing students at the University of California on the Edwards Personal Preference; (b) scores of beginning nursing students described by Ilardi and May and the normative profile scores developed by Shostrum; and (c) scores of women in medical school, women in social work and college students , and women social workers. These profiles seem to indicate that the nurse practitioner students selected by faculty on the basis of personal interviews, which checked for such qualities as independence and initiative, concern for mothers and children, understanding of the practitioner role, and ability to communicate effectively, were quite different from beginning nursing students and more like other women professionals. The nurse practitioner students were more self-actualized than the beginning nursing students on the POI. This article provides several sets of data on nursing students' performance on the POI and other professionals' performance on the POI against which nursing students at the University of Washington can be compared.

HYPOTHESIS IN RELATION TO P.O.I.

Based on LeMay

1. If the verbal scores representing IQ on the Washington pre college are grouped into three levels then the Inner support will be negatively related to GPA for the middle range of ability.

Based on Gibb

2. Self-Actualization as indicated by the Inner Support scale (standard score and the time competence standard score) will be significantly positively correlated with:
   a. the number of years of schooling of parents;
   b. mothers who work;
   c. no religious affiliation or little participation.
   d. age;
   e years in college
   f. being married
   g. increased work experience.

3. Sophomore students will score below the norming levels on the POI standard scores,--Gunter
4. It is believed that society is becoming more existential and sophomores in the present nursing samples will be significantly more self-actualized than past studies of nursing sophomores.
   ...University of Washington sophomores in the present sample will be more self-actualized than the sophomores in the sample sudied by Gunter.
5. Sophomores' profiles on the POI will be significantly lower than Seniors.
6. Senior students' profiles on the POI will be significantly lower than profile of nurse practitioner students as reported by White.
7. Senior profiles on the POI will be significantly lower than Public Health nurse practitioner profiles as reported by Shimmin.

8. The profiles of seniors by class from the University of Washington will be significantly more self-actualized than the profiles of seniors at University of Washington in 1969 reported by Reekie.

   Based on the belief of increased self-actualization in general society and more psychiatric nursing courses incorporating this content.

9. The synergy scores and capacity for Intimate Contact scores will be significantly related to upper division clinical nursing GPA (Reekie).

10. Senior nursing student profiles on the POI will be significantly more like the profiles of sophomores of University of Washington than the profiles of other professionals in the article by White.

11. The S. D. will be significantly larger in the Senior of 1973 U.W. when compared to the S.D. of Seniors 1969 U.V.A. Reekie.

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UNIVERSITY OF WASHINGTON
School of Nursing

Baccalaureate Nursing Curriculum Revision
MYERS-BRIGGS TYPE INDICATOR

The MBTI is a self-report inventory which measures preferences related to extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judging-perceiving (J-P). While the scales were developed to classify people into distinct categories, the scoring system also provides continuous scores which are preferable from a statistical point of view.[1]

As Stricker and Ross (1962) have noted Myers (1962) defines the four dimensions somewhat differently than Jung. The definitions taken from the test manual are the following:

Scale	Definition
Extraversion-Introversion (E-I)	"The introvert's main interests are in the inner world of concepts and ideas, while the extravert's main interests are in the outer world of people and things. Therefore, when circumstances permit, the introvert directs both perception and judgment upon ideas, while the extravert likes to direct both upon his outside environment..." (Myers, 1962, p. 57)
Sensation-Intuition (S-N)	"There is not only the familiar process of sensing, by which we become aware of things directly through our five senses. There is also the process of intuition, which is indirect perception by way of the unconscious, accompanied by ideas or associations which the unconscious tacks on to the perceptions coming from outside. ...When people prefer sensing, they find too much of interest in the actuality around them to spend much energy listening for ideas out of nowhere. When people prefer intuition, they are too much interested in all the possibilities that occur to them to give a whole lot of notice to the actualities." (Myers, 1962, pp. 51-52)
Thinking-Feeling (T-F)	"...thinking...is a logical process, aimed at an impersonal finding...feeling...is a process of appreciation...bestowing on things a personal, subjective value.

[1]["The MBTI when scaled for continuous scoring ranges from a low of 33 points (E,S,T,J types) to a high of 161 (I,N,F,P types). The continuous scoring method retains more data; less information about the individual scores is lost by using the continuous scoring method. This allows for statistical treatment of the MBTI data with other measures" (E. Reekie, "Personality Factors and Biographical Characteristics Associated with Criterion Behaviors of Success in Professional Nursing," unpublished Ph.D. dissertation, University of Washington, 1970, p.39).]

Scale (cont'd.)	Definition (cont'd.)
(T-F)	...If, when one judges these ideas, he concentrates on whether or not they are true, that is thinking-judgment. If one is conscious of like or dislike, of whether these concepts are sympathetic or antagonistic to other ideas he prizes, that is feeling-judgment." (Myers, 1962, p. 52)
Judging-Perceiving* (J-P)	"There is a fundamental difference between the two attitudes. In the judging attitude, in order to come to a conclusion, perception must be shut off for the time being. The evidence is all in. Anything more is incompetent, irrelevant and immaterial. One now arrives at a verdict and gets things settled. Conversely, in the perceptive attitude one shuts off judgment for the time being. The evidence is not all in. There is much more to it than this. New developments will occur. It is much too soon to do anything irrevocable." (Myers, 1962, p. 58)

*rational-irrational in Jung's typology?

KL:sea
5/20/75

MYERS-BRIGGS TYPE INDICATOR

Braun (1965) found that subjects who attempted to make a good impression shifted their scores in the direction of Extraversion, Sensing, Thinking and Judging.

Conary (1965, 1966) found a significant relationship between MBTI type and academic achievement. The intuitive thinkers tended to have higher GPA's.

Grant (1965) compared the Grey-Wheelwright Questionnaire to the MBTI and found that only 26 percent of the students were classified in the same way on both tests.

The INFP type student is more likely to go to medical school than the ESTJ type (Myers and Davis, 1965).

Factor analysis of the MBTI reveals that the S-N scale is closely associated with measures of both ability and attitude toward intellectual activity (Ross, 1966).

Concerning the question of grade prediction, the MBTI increases the predictive accuracy only slightly when added to the usual grade predictors (Stricker, Schiffman, and Ross, 1965). Thus the most appropriate use of such information may not be in selection but in the training and counseling of students.

Stricker and Ross (1964) conducted a series of studies testing the construct validity of the MBTI. They found that the MBTI scores were significantly correlated with scores on the Gray-Wheelwright Psychological Type Questionnaire; but there were some discrepancies between the conceptual definitions and the empirical meanings of the scales.

Webb (1964) demonstrated that there is a loss of reliability when difference scores are reduced to type classifications. He also found that specific scales on the AI were significantly correlated with scale scores on the MBTI.

Richek (1969) found a significant correlation between J-P and S-N for females and a significant correlation between E-I and T-F for males. Thus the scales are not independent and population differences must be taken into account.

For a sample of 339 nurses at Ohio State University, Schoen (1969) found that 20.9 percent were ISFJ, 14.8 percent were ESFJ, and 6.9 percent were ENFP.

Siegel (1963) questioned the appropriateness of using continuous scores on the Myers-Briggs Type Indicator since the theory specifies dichotomous types.

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UNIVERSITY OF WASHINGTON
School of Nursing

Baccalaureate Nursing Curriculum Revision

MYERS-BRIGGS TYPE INDICATOR
(Review to be added to introduction written May 20, 1975)

Reliability

Myers (1962) reports measures of split-half reliability based on a "logically split-half" procedure which involves pairing the items on the basis of item statistics rather than randomly pairing the items. Using this procedure, Myers reports reliability estimates for six different samples which range from a low of .60 for the T-F scale to a high of .94 for the J-P scale (note that the later estimate is for a female population only). In general the reliability estimates for the T-F scale were lower than the estimates for the other three scales. Since the studies reported by Myers (1962) were based on continuous scores, Webb (1964) studied the effect of converting the continuous scores to type classifications and found that there is a loss of reliability when the type classifications are used.

Only two studies in the literature report on the test-retest reliability of the MBTI. The first study by Stricker and Ross (1962) was based on the retest of 41 Amherst freshmen after a 14-month interval. The second study, conducted by Levy, Murphy, and Carlson (1972), which is more relevant to our investigation because it included a female sample, was based on 146 males and 287 females from Howard University retested after only two months. Test-retest reliability coefficients for the female sample were: E-I=.83, S-N=.78, T-F=.82, and J-P=.82. Note also that this study was based on a Black population. The problems in comparing populations across sex and across ethnic origin will be discussed in a later section.

Convergent validity

In a test of the convergent validity of the two personality tests based on Jungian theory, Grant (1965) found that only 26% of the students tested were classified in the same way by the MBTI and the Gray-Wheelwright Questionnaire. In a more comprehensive study of the convergent validity of the MBTI, Stricker and Ross (1964) found that the MBTI scores were significantly correlated with scores on the Gray-Wheelwright Psychological Type Questionnaire. In addition, the MBTI scores were significantly correlated with SAT scores, Concept Mastery Test scores, nine of the MMPI scales, and Edwards' Social Desirability scale. These results raise a serious question about the discriminant validity of the Myers-Briggs Type Indicator, since it becomes unclear as to what, exactly, the test is and is not measuring. For a further discussion of the discrepancy between the conceptual definitions and the empirical meanings of the scales, see Stricker and Ross (1964) and Ross (1966).

Intercorrelation of MBTI scale scores

Stricker and Ross (1964) studied the intercorrelations of scales on the MBTI and found that the E-I, S-N, and T-F scales appeared to be independent, but the J-P scale correlated with both the S-N and T-F scales. In a more recent study, Richek (1969) also reported a significant correlation between the J-P scale

and the S-N scale for females (and a significant correlation between E-I and T-F for males). Thus the scales are not independent and population differences must be taken into account. For a more detailed discussion of this point, see Levy, Murphy, and Carlson (1972).

Grade prediction

Conary (1965, 1966) found a significant relationship between MBTI and academic achievement. Specifically, the intuitive thinkers tended to have higher GPA's. In addition, Ross (1966) found that the S-N scale scores were closely associated with measures of both ability and attitude toward intellectual activity, when compared in a factor analysis. Thus there is some support for the belief that MBTI scale scores might improve grade prediction, but the critical question is: "Just how much variance can be explained by this particular personality test?" Stricker, Schiffman, and Ross (1965) addressed this question and found that the MBTI increased the predictive accuracy only slightly when added to the usual grade predictors (the largest increase using a contingency prediction was only .09). Thus the most appropriate use of such information may not be in selection but in the training and counseling of students.

Population differences in type classification

As mentioned earlier, Levy, Murphy, and Carlson (1972) found significant sex differences as well as distinctive ethnic patterning on the MBTI. In addition, sensing types were most frequently found to be the children of unskilled workers and least frequently the children of professionals (Chi-square significant at the .01 level). It is clear from this study that in classifying a relatively heterogeneous population into MBTI types, one may also be sorting people according to race, SES, and sex since these characteristics covary with MBTI type.

KL:sea
6/3/75

UNIVERSITY OF WASHINGTON
School of Nursing

Baccalaureate Nursing Curriculum Revision

HYPOTHESES AND QUESTIONS

General Questions

1. Can selected personality tests appreciably increase the accuracy of predicting success in nursing courses?
Reekie (1969); Stricker, Schiffman, and Ross (1965); Bergman, et.al. (1974).

2. What is the most frequent reason given by students for dropping out of the University of Washington nursing program? If the reasons are nonacademic, involuntary (as in Miller's study, 1974), what are the advisor's recommendations?

3. Is the new curriculum more consistent with the outcome goals than the old curriculum was? (Pitts, 1974)

4. Has the utilization of assessment data facilitated the curriculum revision? Kramer and Berger (1974)

Hypotheses Related to the Myers-Briggs Type Indicator

1. Specific hypotheses based on Reekie (1969)
   a. The S-N scale scores will be significantly correlated with total college GPA, nursing GPA, upper division clinical nursing GPA, and social science GPA.
   b. The T-F scale scores will be significantly correlated with social science GPA and natural science GPA.

2. Based on results reported by Webb (1964), the difference scores on the MBTI will be significantly correlated with the following AI scale scores:

	Myers-Briggs Difference Scores			
Activities Index	E-I	S-N	T-F	J-P
Achievement		x		
Humanism		x		x
Reflectiveness		x		
Scientism		x	x	
Understanding		x	x	
Aggression		x	x	x
Change	x	x		x
Dominance	x	x	x	
Ego Achievement	x	x		
Emotionality			x	
Energy	x	x		
Exhibitionism	x	x		

Hypotheses (continued) -2-

Activities Index (cont'd.)	Myers-Briggs Difference Scores (cont'd.) E-I	S-N	T-F	J-P
Fantasied Achievement				x
Harm Avoidance	x	x		x
Impulsion				x
Play	x			x
Pragmatism		x		
Sentience		x		x
Sex			x	
Abasement	x		x	
Affiliation	x	x	x	
Conjunctivity				x
Deference		x	x	x
Nurturance	x	x	x	x
Order				x
Succorance		x	x	x

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EVALUATION CONCEPTUAL FRAMEWORK

Students come to a school or choose a school on the basis of certain personality needs or expectations. This set of needs is a force that affects the nature of the school sought and the learning that takes place. Stern[1] has taken Murray's profile[2] of needs and developed them into an Activities Index. According to Murray, needs are organization tendencies which give unity and direction to a person's behavior. Thirty need categories were included in the Activities Index; they are:[3]

1. Aba Abasement - Ass Assurance: self-depreciation versus self-confidence.
2. Ach Achievement: striving for success through personal effort.
3. Ada Adaptability - Dfs Defensiveness: acceptance of criticism versus resistance to suggestion.
4. Aff Affiliation: group-centered social orientation.
5. Agg Aggression - Bla Blame Avoidance: hostility versus its inhibition.
6. Cha Change - Sam Sameness: flexibility versus routine.
7. Cnj Conjunctivity - Dsj Disjunctivity: planfulness versus disorganization.
8. Ctr Counteraction: restriving after failure.
9. Dfr Deference - Rst Restiveness: respect for authority versus rebelliousness.
10. Dom Dominance - Tol Tolerance: ascendancy versus forbearance.
11. E/A Ego Achievement: striving for power through social action.
12. Emo Emotionality - Plc Placidity: expressiveness versus stolidness.
13. Eny Energy - Pas Passivity: effort versus inertia.
14. Exh Exhibitionism - Inf Inferiority Avoidance: attention-seeking versus shyness.
15. F/A Fantasied Achievement: daydreams of extraordinary public recognition.
16. Har Harm Avoidance - Rsk Risktaking: fearfulness versus thrill-seeking.
17. Hum Humanities, Social Science: interests in the humanities and the social sciences.
18. Imp Impulsiveness - Del Deliberation: impetuousness versus reflection.
19. Nar Narcissism: vanity.
20. Nur Nurturance: helping others.
21. Obj Objectivity - Pro Projectivity: objective detachment versus superstition (Activities Index) or suspicion (Environment Indexes).
22. Ord Order - Dso Disorder: compulsive organization of details versus carelessness.
23. Ply Play - Wrk Work: pleasure seeking versus purposefulness.
24. Pra Practicalness - Ipr Impracticalness: interest in practical activity versus indifference to tangible personal gain.

25. Ref Reflectiveness: introspective contemplation.
26. Sci Science: interests in the natural sciences.
27. Sen Sensuality - Pur Puritanism: interest in sensory and aesthetic experiences versus austerity or self-denial.
28. Sex Sexuality - Pru Prudishness: heterosexual interests versus asceticism.
29. Sup Supplication - Aut Autonomy: dependency versus self-reliance.
30. Und Understanding: intellectuality.

The two underlying assumptions of the Activities Index are:

1. characteristic classes of interactions, as conceptualized by need constructs are reflected in specific activities, and 2. the manifestation of interest in these activities is an index to actual participation in such interactions.[4]

While the individual is characterized by need, the environment is characterized by a press. The press may be composed of two parts, a "private beta press" and the mutually shared "consensual beta press."[5] The private beta press is composed of the individual's interpretation of the external behaviors of the groups he works with. The consensual beta press is the way a group perceives the behaviors of the others around them. The activities of the groups may be seen as putting pressure on the individual to carry out certain types of activities. If all members or most members of the group perceive the same pressure, then the press is the consensual beta press. In order for a school to be characterized as having a press, the behaviors must be seen as characteristic or occurring often in the groups mutual interpersonal transactions.

The second instrument that was developed was to look at the environmental press. The thirty hypothesized needs were used to make up thirty hypothesized categories of press. In order to make certain that all major areas of the educational environment were considered, items were developed in terms of the needs and the following major categories:[6]

Academic
1. Faculty characteristics
2. Program and course content
3. Classroom activities: teaching, examinations, outside preparation
4. Extracurricular academic: chapel, press, special programs

Administrative
1. Organizational structure
2. Rules and regulations
3. Physical plant and facilities
4. Student personnel facilities and practices

Student
1. Student characteristics
2. Community life
3. Extracurricular activities
4. Study patterns

A third instrument was developed called the Organizational Climate Index. This instrument gives a more general view of the organizational climate. Factors in the Organizational Climate measure are:

1. Group Life versus Isolation
2. Intellectual Climate
3. Personal Dignity
4. Achievement Standards
5. Orderliness
6. Impulse Control

All three instruments have 300 items and are available from a testing corporation with scoring sheets. They each take about thirty minutes to administer.

The advantage of using this battery of tests are:

1. Comparative data from a large number of Colleges and Universities are available and fully described in Stern's book, People in Context.

2. The reliability for the scales is .72 for the Activities Index using a Kuder Richardson 20 split half and .66 for the College Characteristics using the Kuder Richardson 20 split half reliability estimate.

3. Significant differences among student groups and colleges, private and public, and large and small have been demonstrated.

4. A small sample of nursing students (N = 15) at Syracuse was tested and the instruments were showing the nurses were high in motivation, applied interests

and submissiveness. Because the sample was so small this difference was not significant but was different from the rest of the women population at Syracuse.[7]

Some important findings from the research that has been done on these instruments are (six kinds of undergraduate, including 32 schools, were studied)[8] when three types of liberal arts colleges were compared it was found that:

> The independent liberal arts colleges tend to be characterized by a pronounced intellectual climate and an absence or deemphasis of many non-intellectual factors found in other types of schools. In contrast, both the denominational and the university-affiliated liberal arts programs are below average in intellectually oriented activities, the denominational colleges in particular being singularly low in maintaining pressure for academic achievement from their students. . . .
>
> The non-intellectual factor scores indicate . . . the denominational colleges stress organized group activities and a well-ordered academic community, and the universities stress a high level of collegiate play and peer-culture amusements.[9]

For men, a conclusion was: "It is evident here that the independent liberal arts students are the only group of the three with manifest intellectual needs."[10]

For women, relevant comments were:[11]

> The university women are similarly lacking in any single distinctive score, although the consistency with which they exceed the means for all women on each factor of Area III (Emotional Expression) does suggest some common purpose behind their choice of this type of college setting . . . . The independent liberal arts girls, however, are in the top sixth of all college women in social aggressiveness as well as in intellectuality. They are also high in their motivation for academic work, and even more consistent than the men in rejecting a submissive, conforming group-centered role.

The question can be raised: How much does college change students and how much do students just select college? In relation to these findings, the studies show:

> Freshmen in elite liberal arts colleges are very different from freshmen entering business administration programs, and each group looks remarkably similar to the upperclassmen from their own type of institution . . . . The variability of freshmen and seniors showed little change; the upperclassmen are in general no more homogeneous than the incoming students. The notable exception occurs in the case of the engineers.[12]

> Marked differences have been found in the nature of the programs characterizing the small independent liberal arts college, the denominational college, and at least certain undergraduate areas in the large universities. Since the same interinstitutional differences in student need patterns evidently apply to freshmen as well as to upperclassmen, it must be concluded that each of these undergraduate programs tends to recruit its own distinctive type of student, these students change relatively little along the dimensions measured here as a result of their college experience, and each group must therefore contribute in its own way toward the maintenance of its typical college culture.
>
> Each of these types of schools may be viewed, then, as an ecological niche for a particular kind of student. The independent liberal arts college caters to students concerned with intellectuality and autonomy. Engineering schools also emphasize personal independence, but are otherwise more aggressive, thrill-seeking, and achievement-oriented. The denominational subculture is group-centered, as are university-affiliated liberal arts, business administration, and teacher-training colleges, but each of these differs in its focus. Denominational college life would appear to be more purposive and goal-oriented, less playful and convivial, than that at the large universities, wheras the atmosphere of the business administration programs is decidedly antiintellectual. . . .
>
> This does not correspond to the actual characteristics of these schools at all. Data available from the graduating classes at three of these schools, obtained later in the same academic year, are summarized in Figure 25. It is evident that the incoming freshman expected something rather different from what his upper division colleagues (or as we shall see in a later chapter, second-semester freshmen) have actually experienced. He expected more opportunities for social participation and self-expression, as well as higher academic standards. As an entering freshman, he came expecting to learn; as a senior he has learned perhaps not to expect quite so much. At any rate, the school press would seem to be relatively uninfluenced by the expectations of the incoming student body and the recruitment of student types achieved by some means other than the applicant's accuracy in discriminating institutional differences.[13]

It is felt that studies need to be done on these types of areas. We need to answer some of the following types of questions:

1. What are the needs of our incoming students?
2. How compatible are the needs of the entering students with the press of the school?
3. How much do the needs of our students change as they go through our program?
4. Is some of the press of our school antagonistic to the goals of our program?

5. Are some of the needs of the students antagonistic to the goals of the program? (For example, student high on submission in a program emphasizing independence.)

6. How do the needs of our students and the press of our school compare with other nursing schools?

7. Do the students whose needs are most incompatible with the program have the most difficulty with the program when other factors like IQ or aptitude are removed?

8. How predictive of success are various scores of needs? If entered into as a regression formula?

9. If the faculties needs and perceptions of the institutional press were compared with the students perceptions, how would these relate?

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APPENDIX S

RESULTS OF FACULTY PERCEPTION OF CURRICULUM QUESTIONNAIRE, 1973

QUESTIONS	FREQUENCY DISTRIBUTION					
	Total	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
1. List in order of importance any current trends that you feel were not considered in the curriculum revision but should have been. List the most important first.	20(44.4)					
a. *Equiping students with practical nursing skills*	9(20)					
b. *Preparing students in professionalism*	6(13.3)					
c. *Curriculum review*	6(13.3)					
d. *Course content and sequence*	6(13.3)					
e. *Teaching theory*	4(8,8)					
f. *Expanding the nurse's role to meet contemporary demands of society*	4(8.8)					
g. *Interschool collaboration*	3(6.6)					
h. *Consideration of separate student groups (i.e. minority students, RNB students)*						
2. There will be resistance to the curriculum revision because the trends listed in number 1 were not taken into account.	28(62)	4(14)	7(25)	7(25)	9(32)	1(3.5)
3. The new curriculum has been developed in such a way that most faculty will have to teach some new subject matter.	45(100)	11(24.4)	16(35.6)	11(24.4)	6(13.3)	1(2.2)
4. Some faculty have been against the new curriculum because it required them to change or to teach new subject matter.	45(100)	9(20)	10(22.2)	11(24.4)	11(24.4)	4(8.8)
5. The new curriculum will eliminate some teaching positions.	45(100)	1(2.2)	5(11.1)	17(37.8)	19(42.2)	3(6.6)
6. Most faculty are glad that new knowledge and skills will be incorporated in the new curriculum.	45(100)	9(20)	25(55.6)	8(17.8)	3(6.6)	
7. Opportunities to gain the new knowledge and skills needed for teaching in the new curriculum are easily available.	45(100)	3(6.6)	14(31.1)	10(22.2)	15(33.3)	3(6.6)
8. If you "disagree" or "strongly disagree" with statement number 7, list in order of priority what you feel should and can be done to facilitate the faculty efforts. (Begin with the highest priority.)	16(35.6)					
a. *Increase faculty educational opportunities*	10(22.2)					
b. *Hold faculty workshops and seminars*	6(13.3)					
c. *Improve faculty cooperation (i.e. improving communication channels and working together as a faculty to share knowledge)*	6(13.3)					
d. *Allotment of preparation time*	6(13.3)					
e. *Decrease faculty meetings*	5(11.1)					
f. *Reduce faculty work load*						
9. I do not expect to teach undergraduates in the new curriculum.	44(97.8)		5(11.4)	3(6.8)	16(36.4)	20(45.4)
Skip items 10 through 18 if you have answered "strongly agree" or "agree" to item 9.						
10. I will have to teach new subject matter in the new curriculum.	39(86.6)	4(10.2)	19(48.7)	13(33.3)	3(7.6)	
11. I will like teaching new subject matter in the new curriculum.	39(86.6)	10(25.6)	20(51.3)	7(17.9)	2(5.1)	
12. Teaching new subject matter is a threat to me.	39(86.6)	2(5.1)	7(17.9)	3(7.6)	15(38.4)	12(30.8)
13. If you said "strongly agree" or agree" to statement 12, then list in order of priority what is most threatening about what you might have to teach. Begin with that which is most threatening:	8(17.8)					
a. *Anticipating teaching large numbers of students, possibly some non-nurses*	*					
b. *Inadequate preparation*						
c. *Possible loss of "face" or job*						
d. *New subject matter per se*						
e. *Doing something for the first time*						
14. I know I can be ready to teach in the new curriculum.	40(88.8)	6(15)	20(50)	12(30)	2(5)	
15. I have already started improving my knowledge base and skills in preparation for teaching in the new curriculum.	40(88.8)	5(12.5)	20(50)	4(10)	10(25)	1(2.5)

QUESTIONS	FREQUENCY DISTRIBUTION					
	Total	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
16. I try to keep up my knowledge and skills all the time. The new curriculum won't make any difference.	40(88.8)	11(27.5)	19(47.5)	4(10)	5(12.5)	1(2.5)
17. Team teaching is a good way to teach the new curriculum.	40(88.8)	9(22.5)	13(32.5)	14(35)	3(7.5)	1(2.5)
18. I would like to try team teaching in the new curriculum.	40(88.8)	10(25)	17(42.5)	11(27.5)	2(5)	
19. The new curriculum has made the assignment of teaching responsibilities easier.	43(95.6)	1(2.32)	1(2.32)	20(46.5)	13(30.2)	8(18.6)
20. The new curriculum is built so that a student should get a more integrated knowledge and understanding than with the present curriculum.	45(100)	5(11.1)	24(53.3)	13(28.8)	3(6.6)	
21. Our biggest problems are not with the curriculum but with other sources.	44(97.8)	4(9.1)	15(34.1)	19(43.9)	6(13.6)	
22. If you said you "strongly agree" or "agree" with statement 21, then list in order of priority what you feel these other sources are: (List source causing the most number of problems first.)	20(44.4)					
a. *Lack of preparation time*	*					
b. *Lack of cooperation between faculty and departments*						
c. *Faculty attitudes, such as general dislike of change, low morale*						
d. *Preparation of faculty (i.e. threat of new courses, lack of experience with team teaching)*						
e. *Reward system (does not reward preparation for teaching or outstanding teaching)*						
f. *Problems of organization and communication within the school*						
g. *Impediments at administrative level (i.e. functions of program council, administrative change)*						
h. *High student enrollment*						
i. *Inadequate financial and clinical resources*						
23. Some of these sources listed in statement 22 keep us from working effectively on the new curriculum.	24(53.3)	7(29.2)	11(45.8)	6(25)		
24. Some of the faculty will resist the implementation of the new curriculum because their viewpoints were not incorporated.	45(100)	4(8.8)	22(48.8)	13(28.8)	6(13.3)	
25. All of the most important components which were needed to be incorporated in the new curriculum were incorporated.	43(95.6)	3(7)	17(39.5)	16(37.2)	6(14)	1(2.3)
26. The five best features of the new curriculum are: (List in order of priority stating the best first.)	36(80)					
a. *Increased student electives and specialization opportunities*	18(40)					
b. *Improvement in sequence and content of specific courses*	16(35.6)					
c. *Addition of new course requirements and challenge exams*	9(20)					
d. *More equitable allotment of course time and credit*	8(17.8)					
e. *Integrated course content*	8(17.8)					
f. *Improvement in over-all curriculum sequence*	7(15.6)					
g. *Students now equipped with knowledge of basic sciences before starting nursing courses*	7(15.6)					
h. *Team teaching and interdisciplinary cooperation now possible*	6(13.3)					
i. *New emphasis on cross-cultural nursing*	5(11.1)					
j. *New emphasis on community nursing*	4(8.8)					
k. *New curriculum incorporates expanding roles of nursing*	3(6.6)					
l. *Improved clinical courses*	3(6.6)					
27. The five biggest problems with the new curriculum as accepted are: (List in order of priority putting the biggest problem first.)	27(60)					
a. *Course emphasis and sequence (i.e. merging pediatrics and medical-surgical nursing; not enough patho-physiology)*	9(20)					
b. *Prerequisites and course requirements*	8(17.8)					
c. *Faculty cooperation (i.e. all faculty do not feel part of change)*	8(17.8)					
d. *Undefined goals and directions*	7(15.6)					
e. *Concern for clinical program (i.e. limited time in clinical area)*	7(15.6)					
f. *"Integration" and "departmentalization" aspects*	6(13.3)					

QUESTIONS	FREQUENCY DISTRIBUTION					
	Total	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
a. *Overall organization (i.e. rotation patterns, figuring out who will teach what)*	6(13.3)					
b. *Inflexibility*	5(11.1)					
c. *Transition from old to new curriculum*	4(8.8)					
d. *Faculty fatigue (i.e. heavy schedules, no time to prepare)*	4(8.8)					
e. *High student enrollment vs. faculty decrease*	4(8.8)					
f. *Concern for student career needs (i.e. no value placed on expert practitioner model; lack of skills development)*	3(6.6)					
28. The process used to develop the curriculum allowed for a variety of viewpoints to be discussed.	45(100)	6(13.3)	28(62.2)	8(17.8)	3(6.6)	
29. Some viewpoints were surpressed when discussing the curriculum revision.	43(95.6)	1(2.3)	13(30.2)	16(37.2)	12(27.9)	1(2.3)
30. If you answered "strongly agree" or "agree" to statement 29, list below what viewpoints you feel were surpressed and why you think they were surpressed.	10(22.2)					
a. *Younger faculty, nine month appointees had little opportunity for input; some individuals did not feel free to express opinions*	*					
b. *Circumstances inhibiting expression: lack of time, lack of understanding of revision process, hense unsure of appropriate time for input; inadequate information to make decisions*						
c. *Reasons why viewpoints supressed: lack of cooperation among faculty, too little faculty commitment to participation in revision, inverted curriculum, medical-surgical/pediatrics time increase content conflicts, and some information ignored*						
31. If you answered "strongly agree" or "agree" to statement 29, who surpressed the viewpoints and how do you think they did it?	10(22.2)					
a. *Administrators*	4(8.8)					
b. *Faculty themselves at fault*	3(6.6)					
c. *Informal power holders (i.e. senior, more influential faculty members)*	3(6.6)					
32. What were the most important things that facilitated the communication process in the curriculum revision? (List in order of importance, giving most important first.)						
a. *Task forces*	11(24.4)					
b. *Frequent faculty meetings*	7(15.6)					
c. *Written material*	7(15.6)					
d. *Small group sessions*	5(11.1)					
e. *Faculty involvement*	5(11.1)					
f. *Intra-departmental participation*	4(8.8)					
g. *Undergraduate Curriculum Study Committee*	4(8.8)					
h. *Leadership (director, dean)*	4(8.8)					
i. *Workshops*	4(8.8)					
j. *Undergraduate Curriculum Study Committee Office*	3(6.6)					
33. What five things acted as barriers to the communication process in the curriculum revision? (List in order of importance with the most important first.)	24(53.3)					
a. *Information not circulated to all*	*					
b. *Lengthly written material*						
c. *Organization handicaps*						
d. *Size of faculty*						
e. *Time and workload pressures*						
f. *Apathetic faculty*						
g. *Lack of faculty participation*						
h. *Inconvenient meeting schedules*						
i. *Lack of faculty cooperation and support*						
34. The curriculum developed reflected faculty decisions.	42(93.3)	6(2.4)	24(57.1)	10(23.8)	1(2.4)	1(2.4)
35. If you answered "disagree" or "strongly disagree," list in order of importance those things that you feel did not reflect faculty decisions.						
Only one faculty member answered "disagree" with item 34, but did not list those curriculum features not reflective of faculty decisions. Another faculty answered "strongly disagree" because "credits changed without any consideration of faculty view-point."	*					

QUESTIONS	FREQUENCY DISTRIBUTION					
	Total	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
36. In ten years, many of the things planned for the new curriculum will have been eliminated.	43(95.6)	5(11.6)	11(25.6)	20(46.5)	6(14)	1(2.3)
37. If you "agree" or "strongly agree" with statement 36, list below in order of priority the reasons for these eliminations. Begin with the strongest reason.						
a. New trends in health professions	6(13.3)					
b. Future changes in students, faculty, and learning resources	6(13.3)					
c. Social change	5(11.1)					
d. Already outdated (i.e. curriculum will be outdated before implementation)	4(8.8)					
e. Problems within new curriculum	4(8.8)					
f. Built in resistance in social system	3(6.6)					
g. Impact of progress in general	3(6.6)					
h. Patient influence	2(4.4)					
i. Personal experience: "this is the nature of curriculum change"	1(2.2)					
38. The persons in the school who most influenced the curriculum decisions were: (List in order of priority, listing more influential first.)	29(64.4)					
a. Dean of School of Nursing	24(53.3)					
b. Director of Curriculum Revision Project	22(48.8)					
c. Director of Undergraduate Program	7(15.6)					
39. The groups in the school which most influenced the curriculum revision were: (List in order of priority, beginning with the most influential.)						
a. Listed three or more times:						
Undergraduate Curriculum Study Committee	10(22.2)					
Psychosocial Nursing Department	5(11.1)					
Comparative Nursing Care Systems	4(8.8)					
Physiological Nursing Department	3(6.6)					
Task Forces	3(6.6)					
b. Those groups listed twice:						
Junior medical-surgical faculty	2(4.4)					
Curriculum Revision Office	2(4.4)					
Administration (Dean's office)	2(4.4)					
Faculty	2(4.4)					
c. Those groups listed once:						
Community Health	1(2.2)					
Maternal Nursing	1(2.2)					
Fundamentals faculty	1(2.2)					
Undergraduate Office	1(2.2)					
Dynamics of Illness Task Force	1(2.2)					
Administrative Council	1(2.2)					
Program Council	1(2.2)					
Project Staff	1(2.2)					
Ad Hoc groups	1(2.2)					
"Power groups"	1(2.2)					
40. The five most powerful positive forces that influenced the curriculum revision in the school were:	17(37.8)					
a. Faculty	9(20)					
b. Administration	5(11.1)					
c. Changes outside the school	5(11.1)					
d. Within school groups	5(11.1)					
e. Opportune timing	4(8.8)					
f. Consumer	4(8.8)					
g. Need for curriculum change	3(6.6)					
h. Specific individuals (leadership)	3(6.6)					
i. Students (campus unrest, needs of new graduates, student interest)	2(4.4)					
41. The five most powerful negative forces that influenced the curriculum revision in the school were:	18(40)					
a. Heavy faculty workload	6(13.3)					
b. Faculty (i.e. in fighting, lack of trust, resistance to change)	4(8.8)					
c. Faculty confusion	4(8.8)					
d. "Power People"	4(8.8)					
e. Administration	4(8.8)					
f. Organizational problems	3(6.6)					
g. Conflict with departmental reorganization	2(4.4)					
h. Pressure to change	2(4.4)					
i. Physical barriers (i.e. size of school, new building)	2(4.4)					
j. Student dissatisfaction (i.e. heavy academic load for sophomores)	1(2.2)					

QUESTIONS	FREQUENCY DISTRIBUTION					
	Total	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
42. The five most important forces outside the school which influenced the curriculum revision positively were:	14(31.1)					
a. *Consumer, employers (of nurses), and society in general*	6(13.3)					
b. *Pressure of overall change in health care*	6(13.3)					
c. *Governmental influence*	4(8.8)					
d. *Influence of progress in other schools*	3(6.6)					
e. *University's role*	3(6.6)					
43. The five most important forces outside the school which influenced the curriculum revision negatively were:	7(15.6)					
a. *Outside forces listed were: legislative restrictions; limited clinical resources*	4(8.8)					
b. *Outside forces didn't influence revision because: in-house forces more powerful; no opportunity given for outside influence*	4(8.8)					
44. The curriculum revision process was efficient.	40(88.8)		12(30)	17(42.5)	9(22.5)	2(5)
45. If you "disagree" or "strongly disagree" with statement 43, list in order of priority the forces which reduced the efficiency. Begin with the strongest force.	12(26.6)					
a. *Goals and rationale not clearly defined*	5(11.1)					
b. *Process disorganized*	4(8.8)					
c. *Poor problem-solving approach*	4(8.8)					
d. *Faculty too large and too busy*	3(6.6)					
e. *Personalities (of leaders)*	3(6.6)					
f. *Communication handicaps*	2(4.4)					
46. What things should have been done to increase the efficiency of the revision?	15(33.3)					
a. *The direction and organization of the curriculum process in general*	7(15.6)					
b. *The organization and participation at meetings*	4(8.8)					
c. *Suggestions to allot faculty more time for curriculum revision*	4(8.8)					
d. *Reception of faculty input (i.e. "listen to experienced faculty")*	2(4.4)					
47. Although I do not think our revision was efficient, I believe it was as efficient as most revisions.	34(75.6)	2(5.8)	13(38.2)	14(41.8)	4(11.8)	1(2.9)
48. My biggest concerns about the curriculum revision now are: (List in order of priority, the first statement representing your biggest concern.)	22(48.8)					
a. *Concern with general implementation of revised curriculum*	8(17.8)					
b. *Adequacy of teaching facilities for new courses*	6(13.3)					
c. *Direct impact of revised curriculum on students and faculty*	6(13.3)					
d. *Overlap of old and new curricula*	5(11.1)					
e. *Preparing for new courses under pressure of current faculty responsibility*	5(11.1)					
f. *Large student enrollment vs. faculty decrease*	4(8.8)					
g. *Concerns at course level (i.e. team teaching, challenging of courses, too little clinical)*	3(6.6)					
h. *Overall continuity of revised curriculum*	3(6.6)					
i. *Progress from old to new ("Was it really a change?")*	2(4.4)					
		YES	NO			
49. I was a member of the Undergraduate Curriculum Study Committee.	41(91.1)	11(26.8)	30(73.2)			
50. My level of satisfaction with the curriculum revision so far is:	43(95.6)	2(4.6)	20(46.5)	15(34.8)	3(7)	2(4.6)
51. What factors will impede implementation of the new curriculum. List the most important first.	25(55.6)					
a. *High student enrollment vs. decreased faculty*	9(20)					
b. *Lack of time vs. numerous expectations*	8(17.8)					
c. *Collaboration factors (i.e. Schisms between departments)*	8(17.8)					
d. *Administrative factors*	6(13.3)					
e. *Financial factors*	6(13.3)					
f. *Resistance of faculty and administration to change*	6(13.3)					
g. *Inadequacies of the revised curriculum per se*	5(11.1)					
h. *Shortage of facilities and resources*	4(8.8)					
i. *Personal anxieties (i.e. feelings of inadequacy, anxiety regarding job security)*	2(4.4)					
52. The things I would most like to see happen in relation to the curriculum revision next year are: (List in order of priority, the most important first.)	29(64.4)					
a. *Allotment of preparation time*	9(20)					
b. *Emphasis on improving quality of instruction*	7(15.6)					
c. *Control of student/faculty ratio*	3(6.6)					
d. *Further planning and organization in preparing for implementation of new curriculum*	1(2.2)					

*Data tabulations not available.

APPENDIX T

STUDENT EVALUATION OF MODULES

N281/N302 Nursing Process I and II

1. **Title of Module** _____

2. **Time spent practicing** _____

3. **I did the following learning activities**

   _____ completed some minimum
   _____ completed all minimum
   _____ used some common
   _____ used some extra help
   _____ used some enrichment
   _____ used self-help

4. **General organization of module:** good average poor
   Why?

5. **Content level of Module:** too hard appropriate too easy

6. **Guidelines:** clear confusing
   (If confusing, please explain why)

7. **Learning Outcomes (behaviors):** clear confusing
   (If confusing, please explain why)

8. **Learning activities:** too many enough too few
   suggested additions or deletions:

9. **Access to materials (hardware, software, print, etc):**
   easy adequate difficult
   (State problems, circumstances, how solved, how this problem could have been prevented)

10. **Faculty assistance was available when I needed help:**
    always usually never

11. **Suggestions/Comments**

N302
EVALUATION OF MODULES

	CATHETERIZATIONS	I.V. THERAPY	THERAPY OF HEAT AND COLD	SURGICAL ASEPSIS	ADMINISTRATION OF MEDICATION BY INJECTION	CARE OF THE PATIENT WITH A NASOGASTRIC TUBE	ISOLATION TECHNIQUE
NUMBER RESPONDING	48	47	39	51	41	33	48
LEARNING ACTIVITIES							
Some Minimum	4	5	3	2	1	1	7
All Minimum	44	44	36	47	40	31	47
Some Common	13	14	12	18	19	7	18
Some Extra	2	2	3	5	2	0	3
Some Enrichment	2	1	2	7	3	0	2
Self Help	1	0	0	0	0	1	1
GENERAL ORGANIZATION							
Good	31	30	11	31	34	23	33
Average	15	13	21	17	7	7	15
Poor	2	0	6	1	0	1	0
CONTENT LEVEL							
Too Hard	0	0	1	1	1	0	0
Appropriate	47	42	36	46	39	29	49
Too Easy	0	4	4	1	1	0	0
GUIDELINES							
Clear	38	37	27	41	37	25	46
Confusing	7	2	6	1	0	1	1
LEARNING OUTCOMES							
Clear	42	43	30	50	41	31	47
Confusing	4	2	4	1	0	1	0
LEARNING ACTIVITIES							
Too Many	2	2	4	0	1	1	1
Enough	41	40	24	49	39	23	46
Too Few	5	4	9	2	2	6	2
ACCESS TO MATERIALS							
Easy	24	29	23	24	20	18	29
Adequate	19	17	13	27	19	8	19
Difficult	3	0	1	0	1	1	1
FACULTY ASSISTANCE							
Always	25	24	12	21	28	17	25
Usually	19	18	19	22	9	9	21
Never	1	1	0	0	1	0	0

APPENDIX U

SAMPLE OF STUDENT EVALUATION OF COURSE CONTENT

N324 Evaluation

This questionnaire was designed by the faculty of N324. The purpose of it is to provide input for faculty regarding specific course activities. Please confine your evaluation to course activities; you will have opportunity to evaluate your individual instructor on another occasion. The following is the information we would like to have from you:

a) Rate each of the following activities in terms of how useful you found them as learning experiences. Use the scale given below.
b) If you were teaching the course, would you include the activity? Please indicate in column b.
c) List and comment upon the most useful and least useful aspects of the activities and the changes you would like to see made. Use column c_1, c_2, and c_3 for your responses.

RATING SCALE

5 Very useful -- added substantially to my knowledge, skill and experience
4 Useful in part -- portions were not useful, some of material was repetitive.
3 Neutral -- positive and negative aspects balance out
2 Not too useful
1 Not useful -- should be eliminated or changed
0 Not applicable

Section _____

N324 Evaluation

ACTIVITIES	Rating (a)	Would include in future yes/no (b)	(c_1) Most useful aspect of activity	(c_2) Least useful aspect of activity	(c_3) Suggestions for change
ORIENTATION TO COURSE					
PATIENT CARE EXPERIENCES					
PATIENT ASSESSMENT TOOL					
WRITTEN CARE PLAN ASSIGNMENTS					
ON-THE-SPOT ASSESSMENT EXPERIENCE					
LAB TEST, MINI PRESENTATIONS					
PATIENT CARE PRESENTATIONS					
SURGICAL FOLLOW-THROUGH					
WEEKLY SELF-EVALUATION					
CLINICAL CONFERENCES					
FLUID FLOW IN TUBES					
GASTROINTESTINAL TUBES & IV'S					
PRE- AND POST-OP CARE					
CLINICAL APPLICATIONS OF FLUID, ELECTROLYTE & ACID-BASE THEORY					
OXYGEN THERAPY					
LUNG ASSESSMENT					
ALIMENTATION					
ALCOHOL					
OSTOMIES					
OTHER					
CREDIT/NO CREDIT GRADING					

1. How did N324 build upon knowledge from Nursing Process?

2a. Did you review any Nursing Process modules?

b. If yes, which?

EVALUATION N324 - WINTER 1976

Total Responding (35 out of 40)

ACTIVITIES	Rating						Would Include in Future		
	5	4	3	2	1	0	YES	NO	NO ANSWER
1. Orientation to Course	11	11	7	0	1	5	29	0	6
2. Patient Care Experiences	23	11	1	0	0	0	34	0	1
3. Patient Assessment Tools	23	12	0	0	0	0	35	0	0
4. Written Care Plan Assignments	11	18	3	0	1	0	34	0	1
5. On-the-Spot Assessment Experience	22	7	4	2	0	0	32	2	1
6. Lab Test, Mini Presentations	14	8	9	0	0	4	28	1	6
7. Patient Care Presentations	4	6	1	0	0	23	11	0	24
8. Surgical Follow-Through	18	1	2	0	0	14	21	0	14
9. Weekly Self-Evaluation	11	14	6	2	2	0	30	4	1
CLINICAL CONFERENCES									
10. Fluid Flow in Tubes	26	7	0	0	0	2	32	0	3
11. Gastrointestinal Tubes & IV's	19	7	5	0	0	3	31	0	4
12. Pre- and Post-Op Care	8	14	6	0	0	5	28	0	7
13. Clinical Applications of Fluid, Electrolyte & Acid-Base Theory	23	7	0	1	0	2	32	0	3
14. Oxygen Therapy	22	9	2	0	0	1	33	0	2
15. Lung Assessment	13	11	5	0	0	1	32	1	2
16. Alimentation	10	8	8	0	0	6	27	0	8
17. Alcohol	29	5	0	0	0	0	33	0	2
18. Ostomies	16	8	2	0	0	8	24	0	11
OTHER									
19. Credit/No Credit Grading	19	2	3	0	1	0	22	2	12

RATING SCALE

5 Very useful--added substantially to my knowledge, skill and experience
4 Useful in part--portions were not useful, some of material was repetitive
3 Neutral--positive and negative aspects balance out
2 Not too useful
1 Not useful--should be eliminated or changed
0 Not applicable

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June 19, 1975

MEMORANDUM

TO: Vivian C. Wolf, Ph.D.
Physiological Nursing

FROM: John R. Pettit
Assistant Attorney General

RE: Transfer of Grant Research Data

This is in response to your memo to me dated June 16, 1975, regarding the applicability of the Buckley Amendment to certain data compiled by you in the course of a curriculum revision research project. In particular, you were concerned with whether you could transfer such data back to the School of Nursing, and whether additional consent from the student participants would be necessary.

In my opinion, the answer to these questions is that the data may be so transferred, and other appropriate researchers may utilize the data, so long as the basic terms of the original consent agreement are honored. In other words, I do not regard the consent given as being personal to you; rather, I believe that the students were consenting to having the data be used in the project of which you were the director. Since you are now leaving your position as director of the project, it will obviously be necessary for other people to have access to the data to continue carrying out the goals of the project. At the same time, I believe that any subsequent use of the data must be in a manner which is consistent with the terms of the consent agreement, insofar as the identification of the data with particular individuals is concerned.

I believe that these conclusions are consistent with the intent of the Buckley Amendment, which exempts from the consent requirement information released to:

> "organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction.

> if such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organizations and such information will be destroyed when no longer needed for the purpose for which it is conducted . . ."

If you have further questions regarding this matter, please contact me.

John R. Pettit
Assistant Attorney General

JRP:eh